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COAST/VALLEY PLANNING AREA

RESOURCE MANAGEMENT PLAN
AND
ENVIRONMENTAL IMPACT STATEMENT

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BAKERSFIELD DISTRICT

MAY 1984

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March 3, 1849

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

800 Truxtun Avenue, Room 302
Bakersfield, California 93301
Phone: (805) 861-4191
Office Hours: 7:30 a.m. to 4:00 p.m. weekdays

IN REPLY
REFER TO:

Dear Reviewer:

Enclosed for your review and comment are the Proposed Resource Management Plan (RMP) and the Draft Environmental Impact Statement (EIS) for the Coast/Valley Planning Area in the Caliente Resource Area which includes western Kern, Kings, San Luis Obispo, Santa Barbara, western Tulare, and Ventura counties, California, within the Bakersfield BLM District. The EIS fulfills the environmental analysis requirements for livestock grazing management within the planning area.

The document is based on information from the Bureau of Land Management and other sources including federal, state, and local agencies, and interested private organizations and citizens.

In order to better understand this document, please review the Document Format section first (page 1-1). This section describes the chapters and how they interrelate with each other in the document. This was done so the reviewer may know how to follow the respective alternatives, issues, and resources for each of the six management areas which, when combined, make up the planning area.

Comments on the plan and Draft EIS should be received no later than SEPT. 6, 1984. Comments received after the 90-day review period will still be considered in the decision process. Comments should be returned to:

Area Manager
Bureau of Land Management
520 Butte Street
Bakersfield, CA 93305

Sincerely yours,

Robert D. Rheiner Jr.

Robert D. Rheiner, Jr.
District Manager

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Draft Environmental Impact Statement

PROPOSED RESOURCE MANAGEMENT PLAN
FOR THE COAST/VALLEY PLANNING AREA
KERN, KINGS, SAN LUIS OBISPO, SANTA BARBARA
TULARE, AND VENTURA COUNTIES, CALIFORNIA

Prepared by
Department of the Interior
Bureau of Land Management
Bakersfield District

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The Bureau of Land Management proposes to implement a multiple-use Resource Management Plan on 236,600 surface and subsurface acres and 280,400 subsurface only acres of public land in the Coast/Valley Planning Area of California.

The five alternative plans (plus one subalternative) present a spread between development oriented and protection oriented resource allocations. Environmental consequences of the proposed plan and each of the alternatives are described in the Summary and in Chapter 4 of the EIS.

Ed Hastey
Ed Hastey
State Director, California

For further information contact:
Glenn A. Carpenter
Caliente Resource Area Manager
Bureau of Land Management
520 Butte Street
Bakersfield, California 93305

Date by which comments are due:

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PROPOSED
RESOURCE MANAGEMENT PLAN
FOR THE
COAST/VALLEY PLANNING AREA IN THE CALIENTE RESOURCE AREA

PROPOSED ACTION AND
DRAFT ENVIRONMENTAL IMPACT STATEMENT

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

CALIFORNIA

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SUMMARY

SUMMARY

This EIS examines six alternatives:

- I. Emphasize Protection
- IA. No Grazing
- II. Combined Emphasis
- III. Emphasize Production
- IV. Present Management (No Action)
- V. Proposed Action

For six Management Areas:

1. Coast
2. Cuyama
3. Point Sal
4. Soda Lake
5. Temblor-Caliente/Valley
6. Ventura

Dealing with six issues:

- A. Land Tenure Adjustment
- B. Livestock Grazing
- C. Minerals
- D. Recreation Use
- E. Special Land and Resource Use Needs
- F. Water Quality and Watershed Protection

Concerning multiple use resource management on 236,600 surface and subsurface acres and 280,400 subsurface only acres of public land within the Coast/Valley Planning Area of the Caliente Resource Area.

TABLE S - 1:
CUMULATIVE ALTERNATIVE SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis[2]	Alternative III: Emphasize Production	Alternative IV: Present Management[3]
LAND TENURE ADJUSTMENT	- Retention of all public land.	- Environmentally review approximately 18,870 acres for disposal. Retention of 218,260 acres.	- Environmentally review approximately 43,920 acres for disposal. Retention of 193,210 acres.	- Same as Alternative I.
LIVESTOCK GRAZING	- Authorization of 7,730 livestock AUMs for M and C category allotments.	- Authorization of 8,493 livestock AUMs for M and C category allotments.	- Authorization of 9,267 livestock AUMs for M and C category allotments.	- Authorization of 9,952 livestock AUMs for M and C category allotments.
	- Authorization of 650 lbs. to 850 lbs. of residual mulch on slopes from 0% to 50% depending on the allotment in I category only.[1]	- Authorization of 450 lbs. to 550 lbs. of residual mulch on slopes of 0% to 50% depending on the allotment in I category only.	- Authorization of 350 lbs. of residual mulch on slopes of 0-50% on all allotments in I category only.	- All I category allotments will be managed at a total of 20,553 AUMs. Mulch management will not be applied.
	- Allow 20-40% utilization of saltbush and browse species.	- Allow 40-60% utilization of saltbush and browse species.	- Allow 60-80% utilization of saltbush and browse species.	
	- No new allotments will be proposed.	- New grazing allotments will be handled on a case-by-case basis on application.	- Offer 21,480 acres of grazable land for new allotment(s).	- New grazing allotments will be handled on a case-by-case basis on application demand.
	Support Needs: - BMPs for some allotments.	Support Needs: - BMPs for some allotments.	Support Needs:	Support Needs:
	- Vegetation manipulation of 5,074 acres in allotments 0031, 0044, 0060, and 0070.	- Vegetation manipulation of 6,783 acres in allotments 0031, 0044, 0060, and 0070.	- Vegetation manipulation of 8,562 acres in allotments 0031, 0044, 0060, and 0070.	- Same as Alternative III.

[1] Refer to alternative for sdditional information on residual mulch level

[2] Same as Alternative V - Proposed Action except for Livestock Grazing Issue

[3] Same as Alternative I - Proposed Action for Livestock Grazing Issues Only

TABLE S-1 Cont.:
CUMULATIVE ALTERNATIVE SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
LIVESTOCK GRAZING (cont.)	- AMPs for all I category allotments.	- AMPs for all I category allotments.	- AMPs for all I category allotments.	
	- One cattleguard in allotment 0015.	- One cattleguard in allotment 0015.	- One cattleguard in allotment 0015.	- 1 cattleguard in allotment 0015.
	- 5 miles of fence in allotment 0053.	- 8 miles of fence in allotment 0053.	- 10 miles of fence in allotment 0053.	
			- Development of reservoir and construction of 1 spring development in allotment 0060.	
		- Construction of 1 water pipeline with trough in allotments 0073, and 0096.	- Construction of 2 spring developments in allotments 0028, 0044, 0053, and 0096.	- Construction of 1 water pipeline with troughs in allotments 0031, 0063, 0070.
			- Construction of 1 water pipeline with troughs in allotments 0028, 0063, and 0070.	- Construction of 2 water pipelines with troughs in allotments 0044, 0053.
			- Construction of 3 water pipelines with troughs in allotment 0073.	- Construction of 3 water pipelines with toughs in allotment 0073.
	Alternative IA-Cancellation of 30,505 AUMS under no grazing.			

TABLE S-1 Cont.:
CUMULATIVE ALTERNATIVE SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
MINERALS	- 492,690 acres are open to mineral location, leasing, disposal (Mineral Material sales).	- 504,820 acres open to oil and gas exploration and leasing.	- 517,570 acres are open to mineral location, leasing, and disposal (sales).	- 517,570 acres are open to mineral leasing, (except oil and gas), location, and disposals (sales).
	- Close 24,810 acres to mineral location, leasing and disposals (sales).	- 517,340 acres will be opened mineral location and disposal (sales).		- 514,550 acres are open to oil gas exploration and leasing (3,020 acres closed).
		- 12,750 acres closed to oil and gas exploration and leasing.		
		- 230 acres closed to mineral location.		
		- 5,520 acres subject to a no surface occupancy (NSO) stipulation for oil and gas lease or permit.		
		- 36,000 acres subject to special stipulations.		
	- Special Category Areas will be managed to exclude mineral location, leasing, and disposals.	- Special Category Areas will be managed to exclude mineral leasing (except in KGS, KGRA, or KLA areas) and disposal (except for emergency actions).		

TABLE S-1 Cont.:
CUMULATIVE ALTERNATIVE SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
MINERALS (cont.)	- Management on all land open will be to prevent undue and unnecessary degradation and all operations conducted to reflect sound reclamation practices.	- Locatable mineral activities in Special Category Areas will be managed under an approved Plan of Operation.		
		- Locations in closed areas will have their valid rights verified.	- Same as Alternative II.	
	Support Needs: - Valid rights in Special Category Areas will be verified.	- Same as Alternative I.	- Same as Alternative I.	- Same as Alternative I.
	- GEM Assessments for planning area (except Point Sal and Soda Lake MAs).	- Same as Alternative I.	- Same as Alternative I.	
	- Develop MOU with SMARA lead agencies.	- Same as Alternative I.	- Same as Alternative I.	- Same as Alternative I.
	- VRM inventory.	- Same as Alternative I.	- Same as Alternative I.	
	- Develop reclamation guidelines and standards.	- Same as Alternative I.	- Same as Alternative I.	
RECREATION USE	- Designation of 5,060 acres closed to ORV use in the planning area.	- Designation of 50 acres closed to ORV use in the planning area.	- Designation of 233,260 acres open to ORV use in planning area.	- Open to all other forms of recreation.
	- Limited ORV use to 870 miles of existing roads, ways, and trails.	- Limited ORV use to 880 miles of existing roads, ways, and trails.	- Limited ORV use to 10.5 miles to existing roads, ways, and trails.	- Undesignated for ORV use.
	- Develop walk-in access to Caliente Mountain.	- Develop walk-in access to Caliente Mountain.	- Develop road access to Caliente Mountain and obtain another easement.	- Access to Caliente Mountain unmarked.

TABLE S-1 Cont.:
CUMULATIVE ALTERNATIVE SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
RECREATION USE (cont.)	- Alter Poso Creek to discourage shooting.	- Alter Poso Creek to discourage shooting, encourage development of alternative site.	- Poso Creek open to shooting.	- Poso Creek accessible to shooting.
SPECIAL LAND AND RESOURCE USE NEEDS	- No pesticide or herbicide spraying allowed within T and E critical/proposed critical habitat within ½ mile of wildlife guzzlers (16,570 acres) and from April through June in upland game habitat on 85,500 acres.	- Pesticide or herbicide spraying (e.g., malathion) will be allowed only after a"no jeopardy" decision by the USFWS for those parcels with T and E critical/proposed critical habitat. No spraying of pesticides or herbicides within ½ mile of guzzlers (16,570 acres) and from April through June in upland game habitat (85,500 acres).	- Same as Alternative II.	- Monitor statewide MOU between the Bureau and California Department of Food and Agriculture for pesticide spraying. Supplemental MOUs will be developed and will meet the requirements of the Endangered Species Act.
	- Designation of 4 ACECs in 3 MAs (11,660 acres).	- Same as Alternative I.	- Manage for the protection of aesthetics, cultural resources, and T and E species while still allowing for other resource development.	- Support needs for Soda Lake include fencing, 1 guzzler, parking lots, trails, observation decks, and maintenance.
	- Designation of 2 Research Natural Areas in 1 MA (2,120 acres).	- Same as Alternative I.		- Manage Soda Lake MA according to HMP guidelines.
	- Nomination of 1 National Natural Landmark (1,120 acres).	- Same as Alternative I.		- Maintain Point Sal MA in natural state.
	- Withdraw 2 MAs from entry/ appropriation and leasing.	- Withdraw 2 MAs from entry/ appropriation and leasing.		

TABLE S-1 Cont.:
CUMULATIVE ALTERNATIVE SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
SPECIAL LAND AND RESOURCE USE NEEDS (cont.)	- No construction permitted on 11,000 acres of T and E critical/proposed critical habitat and known cultural sites.	- Allow construction only where impacts to T and E critical/proposed critical habitat and known culture sites can be avoided.	- Allow construction only where impacts to T and E critical/proposed critical habitat can be avoided and impacts to cultural sites can be mitigated.	- Same as Alternative III.
	- Continued management of National Cooperative Land and Wildlife Management Areas with the California Department of Fish and Game (114,805 acres).	- Same as Alternative I.	- Same as Alternative I.	- Same as Alternative I.
	Support Needs: - Modified fire suppression plans (54,600 acres).	Support Needs: - Same as Alternative I.	Support Needs: - Same as Alternative I.	
	- Coordinated Management Agreement(s) (2,970 acres)			
WATER QUALITY AND WATERSHED PROTECTION	- No construction on slopes exceeding 30% (131,970 acres).	- No construction on slopes exceeding 50% (77,650 acres).	- No construction on slopes exceeding 70% (38,477 acres).	- Potential impacts from proposed uses are evaluated on a case-by-case basis. Impacts are mitigated.
	- Protect all existing water sources.	- Protect all primary water sources and allow use of secondary sources.		- All new road construction should have culverts installed where required, appropriate water spreading devices, and meet specifications of average side slopes less than 30% and average grade of 10% of less (Temblor-Caliente/Valley MA).
	Support Needs: - BMPs.			
	- Fencing where needed.			

TABLE S-2:
CUMULATIVE IMPACT SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis1/	Alternative III: Emphasize Production	Alternative IV: Present Management2/
LAND TENURE ADJUSTMENT	- Continued management costs associated with small, scattered parcels.	- Increased manageability from consolidation.	- Same as Alternative II.	- Same as Alternative I.
	- Loss of potential revenue from disposal			- Same as Alternative I.
		- Increased revenue for local governments.	- Same as Alternative II.	
		- Estimated fair market value of $2,130,000 from sale of public land.	- Estimated fair market value of $6,330,000 from sale of public land.	
		- Loss of 18,870 acres to oil gas exploration.	- Loss of 43,920 acres to oil and gas exploration.	
		- Potential loss of 18,870 acres to recreation.	- Potential loss of 43,920 acres to recreation.	
	- Ensures protection and maintenance of isolated parcels that may provide habitat for federally listed T and E species.			- Same as Alternative I.
LIVESTOCK GRAZING	- Large mulch requirements will result in light grazing and improved endangered species habitat.	- Moderate mulch requirements will result in moderate grazing and improved endangered species habitat.	- Low mulch requirements will result in heavy grazing.	- All I category allotments will be grazed heavier in poor forage years than in good forage years.
	- Leaving more mulch will stabilize soil temperature, improve the soil as a habitat for organisms, retard evaporation, and increase infiltration.			

1/ Same as Alternative V - Proposed Action except for Livestock Grazing Issue
2/ Same as Alternative V - Propsed Action for Livestock Grazing Issue Only

TABLE S-2 Cont.:
CUMULATIVE IMPACT SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
LIVESTOCK GRAZING (cont.)	- Forage allowances will leave more forage unused on good production years.			
	- All M and C category allotments will be grazed heavier in poor forage years than in good forage years.	- Same as Alternative I	- Same as Alternative I	- Same as Alternative I
	- Reduction in stocking rates of more than 20% will improve water quality.		- Offering all suitable areas for new grazing allotments will degrade water quality.	
	- Minor soil compaction and soil erosion from livestock grazing.			- Soil compaction and accelerated soil erosion from livestock grazing.
	- Utilization levels of saltbush and key browse species will improve vigor.	- Utilization levels of saltbush and key browse species will maintain vigor.	- Utilization levels of saltbush and key browse species will decrease vigor.	- Same as Alternative III.
	- Potential loss of recreation from fencing.	- Same as Alternative I	- Same as Alternative I	- Same as Alternative I
	- Protection of 760 acres of upland game habitat.	- Reduction of grazing on M and C category allotments will improve habitat for BNLL and SJKF prey base.	- Mulch management will benefit wildlife.	
	Support Needs: - Prescribed burning of 5,074 acres will temporarily improve grazing, which will increase AUMs by 891.	Support Needs: - Prescribed burning of 6,783 acres will temporarily improve grazing, which will increase AUMs by 1,212.	Support Needs: - Prescribed burning of 14,122 acres will temporarily improve grazing, which will increase AUMs by 2,134.	Support Needs: - Same as Alternative III.
	- Temporary soil erosion from prescribed burning.	- Same as Alternative I.	- Same as Alternative I.	- Same as Alternative I.

TABLE S-2 Cont.:
CUMULATIVE IMPACT SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
LIVESTOCK GRAZING (CONT.)	- The mosaic pattern resulting from vegetation manipulation (prescribed burning) will provide more of an edge effect for wildlife and may cause a change in species composition.	- Same as Alternative I.	- Same as Alternative I.	- Same as Alternative I.
	- Proposed fencing projects will improve livestock distribution which will improve growth of saltbush and key browse species.	- Same as Alternative I.		
		- Livestock use and vegetation manipulation will degrade cultural values.	- Same as Alternative II.	- Same as Alternative II.
		- Water pipelines and troughs have a positive effect on water quality.	- Same as Alternative II.	- Livestock concentrating around water sources adversely impact water quality and causes soil compaction.
		- Livestock grazing on 75% slopes will cause accelerated soil erosion.	- Construction and livestock grazing on slopes over 50-70% will cause accelerated soil erosion and sedimentation in drainages.	
			- Water developments help distribute livestock concentrations and prevent vegetation loss.	- Same as Alternative III.
		- Minor localized benefit to wildlife due to reservoir construction.	- Same as Alternative II.	- Same as Alternative II.

TABLE S-2 Cont.:
CUMULATIVE IMPACT SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
LIVESTOCK GRAZING (cont.)	Alternative IA: - A loss of 30,505 AUMs. Potential revenue loss to public ($42,630). Cost to graze same AUM level on private land ($270,000). - 162,450 acres open to all recreational uses. - Water quality and soil stability will improve. - Adverse impacts to cultural resources will be eliminated. - Ensures protection and maintenance of federally listed T and E species. - Peak wildlife populations will be higher and achieved sooner. - Fire hazard will increase from buildup of old vegetation.			
MINERALS	- Closure of 24,810 acres will mean a loss of approximately $30,330 in annual oil and gas rental.	- Closure of 12,750 acres will mean a loss of approximately $12,750 in annual oil and gas rental.	- An increase of 3,020 acres of prospectively valuable oil and gas acreage open to exploration and leasing with an increase in annual rental of $3,020.	- Loss of 3,020 acres of prospectively valuable oil and gas acreage with an annual rental loss of $3,020.

TABLE S-2 Cont.:
CUMULATIVE IMPACT SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
MINERALS (cont.)	- Loss of 5,520 acres of oil and gas productive acreage (production loss undetermined).			
	- Loss of 19,290 acres of prospectively valuable oil gas acreage (production loss undetermined).	- Loss of 12,750 acres of prospectively valuable oil and gas acreage (production loss undetermined).		
	- Loss of approximately 1,500 acres of prospectively valuable phosphate acreage.	- Potential loss of 1,500 acres of prospectively valuable phosphate acreage because of restrictive post-lease stipulations.		
	- Loss of 500,000 tons of potential economic sodium sulphate resources.	- Potential loss of 500,000 tons of potential sodium sulphate resources because of restrictive stipulations (NSO).		
	- Loss of 8,000 acres of sand and gravel resources.	- Loss of 800 acres of sand and gravel resources.		
	- Loss of approximately 4% of the identified gypsum/gypsite resources.			
		- 230 acres of Special Category Areas will be closed to mineral location and disposals (sale).		

TABLE S-2 Cont.:
CUMULATIVE IMPACT SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
RECREATION USE	- 5,060 acres closed to ORV use.	- 50 acres closed to ORV use.	- 233,600 acres open to ORV use.	- 237,000 open to ORV and other recreational uses.
	- ORV use limited to 870 miles of existing roads, ways, and trails.	- ORV use limited to 880 miles of existing roads, ways, and trails.	- 237,000 acres open to recreational use other than ORV.	
	- Closing public land to ORV use will help vegetation recover, decrease soil erosion, and benefit wildlife (to include RT and E Species).	- Same as Alternative I.	- Designation as open to ORV use will increase soil erosion, soil compaction, degrade water quality, and adversely impact wildlife habitat.	- Soil compaction, accelerated soil erosion, and degraded water quality due to ORV use.
	- Water quality will be degraded from ORV use.	- Same as Alternative I.		
	- Potential reduction of 5 acres from shooting at Poso Creek.	- Potential need for right-of-way for new shooting area.	- Continued problem with shooting at Poso Creek.	- Same as Alternative III.
		- Potential loss of cultural resources from ORV use and casual collecting.	- Same as Alternative II.	- Same as Alternative II.
		- Potential need for right-of-way for easement to Caliente Mountain.		

TABLE S-2 Cont.:
CUMULATIVE IMPACT SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
SPECIAL LAND AND RESOURCE USE NEEDS	- Ensures BNLL will not be jeopardized.	- Meets the minimum legal requirements for protection of endangered species habitat regarding spraying.	- Same as Alternative II.	- Same as Alternative II.
	- Spraying restrictions near guzzlers will prevent contamination of available water for upland game, and ensure adequate food supply during critical nesting period.	- Same as Alternative I.	- Same as Alternative I.	- Decrease in food supply for young of upland game which will affect their healthiness if spraying permitted near guzzlers or during April through June.
	- May require re-routing or rejection of some land use applications.	- Same as Alternative I.	- Same as Alternative I.	
	- Protection of 1,090 acres for cultural resource and paleontological resource values.	- Same as Alternative I.		
	- Protection of 1,170 acres for geological study.	- Same as Alternative I.		
	- Protection of 11,660 acres for wildlife to include T and E species.	- Same as Alternative I.		
		- Loss of 0.5 miles of access from ORV use.	- ORV use limited to 10 miles of existing roads, ways, and trails. No cross-country travel allowed on 2,970 acres.	

TABLE S-2 Cont.:
CUMULATIVE IMPACT SUMMARY

Issue	Alternative I: Emphssize Protection Alternative IA: No Grazing	Alternative II: Combined Emphssis	Alternative III: Emphasize Production	Alternative IV: Present Management
WATER QUALITY AND WATERSHED PROTECTION	- No construction will be allowed on 131,970 acres of slopes greater than 30% or on highly erosive soils.	- No construction will be allowed on 77,650 acres of slopes greater than 50% or on highly erosive soils.	- No construction will be allowed on 38,480 acres of slopes greater than 70% or on highly erosive soils.	- Development and construction on steep slopes will cause sheet and gully erosion.
		- Construction activities on slopes between 30-50% (54,320 acres) may cause accelerated soil erosion.	- Construction activities on slopes between 50-70% (39,200 acres) may cause accelerated soil erosion.	
	- No construction on slopes greater than 30% will prohibit one mile of fencing for livestock grazing.	- Slope restriction of 50% will exclude 3.7 miles of fencing for livestock grazing.	- Slope restrictions of 70% will exclude 4.5 miles of fencing for livestock grazing.	
	- Pre/post-leasing may contain special stipulations which may restrict development of roads, pipelines, sumps, and oil wells.	- Same as Alternative I.	- Same as Alternative I.	- Operators for mineral development comply with site specific mitigation measures prescribed on a case-by-case basis.
	- May require re-routing or rejection of some land use applications due to slope, soil types, or proximity to reservoirs.	- Same as Alternative I.	- Same as Alternative I.	
	- Best protection for water quality and soils.	- Minor, short-term soil erosion due to fencing activities.	- Same as Alternative II.	- Natural water sources will continue to be impacted.
		- No construction on slopes greater than 50% will eliminate access (3.5 miles) to Caliente Mountain.		

TABLE S-2 Cont.:
CUMULATIVE IMPACT SUMMARY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
WATER QUALITY AND WATERSHED PROTECTION (cont.)	Support Needs: - Reduced erosion and fencing water sources will result in improved browse conditions. More cover for endangered species and upland game will be provided especially around springs.	Support Needs: - Same as Alternative I.	Support Needs: - Same as Alternative I.	

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CHAPTER 1

INTRODUCTION

Chapter 1

INTRODUCTION

DOCUMENT FORMAT

Summary -
Summarizes Chapter 2 (Alternatives) and Chapter 4 (Environmental Consequences of the alternatives).

Chapter 1 - Introduction
Explains: 1) where the planning area is located; 2) why a land use plan is needed; 3) what issues are addressed in the document; 4) what the goals are; and 5) how the alternatives (Chapter 2) were developed.

Chapter 2 - Alternatives
Identifies specifically what the alternatives are for each management area (the six identified management areas make up the entire planning area).

This chapter identifies the proposed action and specific proposals within it as well as the Standard Operating Procedures which will be followed regardless of which alternative plan is approved.

Chapter 3 - Affected Environment
Describes the existing environment by resources for the entire planning area then for each management area. The resources addressed are as follows:

- Cultural and Paleontological Resources
- Livestock Grazing
- Minerals
- Realty
- Recreation
- Soils
- Water Resources
- Wildlife

Chapter 4 - Environmental Consequences
Discusses the impacts to resources (same as identified above) in each issue by each alternative (Chapter 2) within each management area in the following format:

- Management Area 1 through 6
    - Alternatives I through IV
        - Issue
            - Resources
        - Issue
            - Resources
        - Etc.

This format was developed so the reader and the decision maker can visualize what impacts each alternative will have in each management area collectively.

Chapter 5- Consultation and Coordination
Outlines who was and is involved in the preparation and review of this document.

Appendices -
Additional information referenced in the document.

Glossary -
Explains those acronyms and terms unfamiliar to reviewers from variable disciplines and backgrounds.

References -
Sources used to provide the information in the document.

LOCATION OF PLANNING AREA

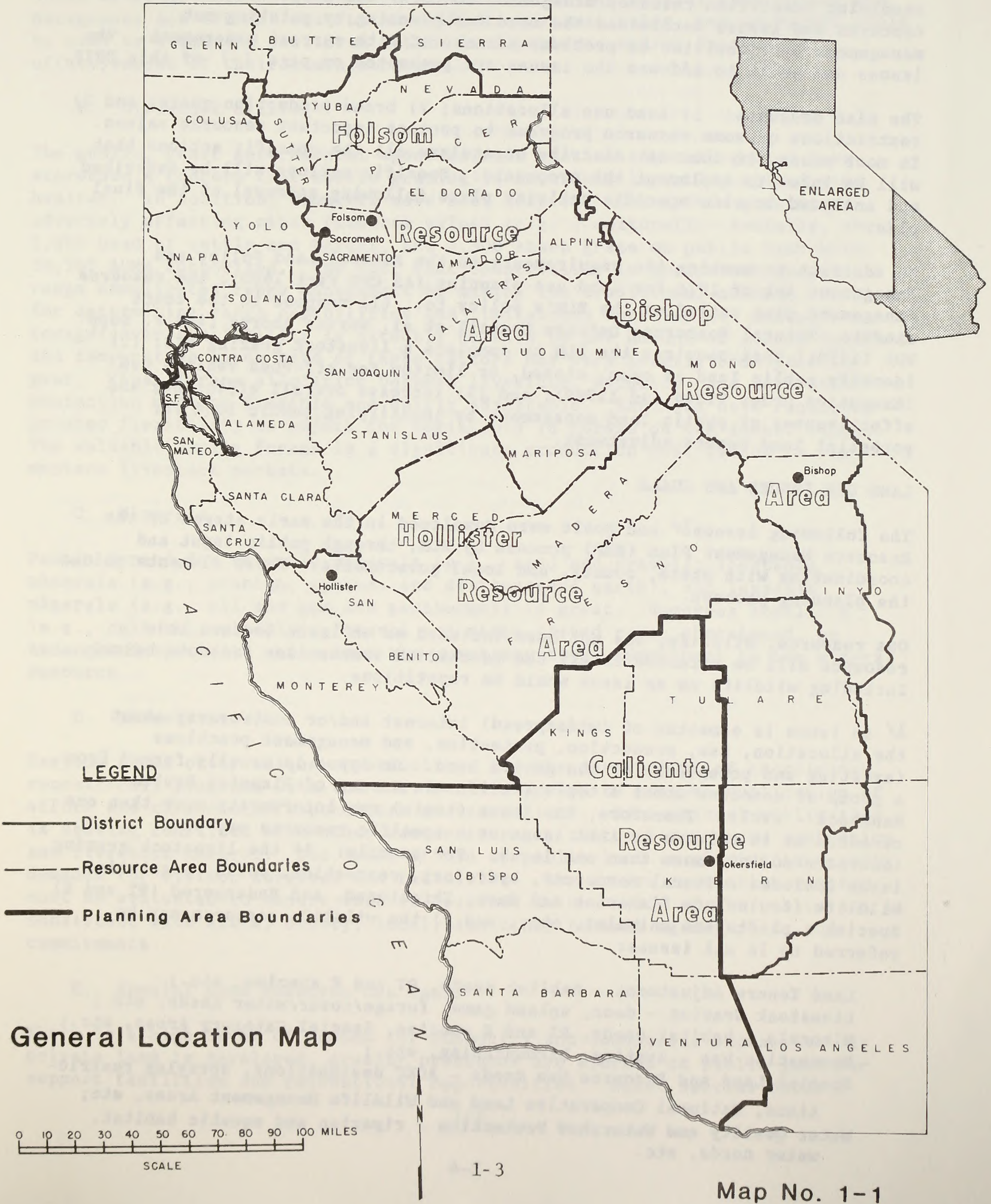
The Coast/Valley Planning Area is comprised of 236,600 acres of surface and subsurface and 280,400 acres of subsurface only land within six central California counties; western Kern, Kings, San Luis Obispo, Santa Barbara, western Tulare, and Ventura (see Maps 1-1, 1-2).

Areas of note in this planning area include Point Sal (cultural, plants, recreation, wildlife), Soda Lake (sandhill crane use), the oilfields in western Kern County, the Temblor and Caliente Mountain Ranges, the San Andreas Fault Scarp (geologic study), Goose Lake (cultural, wildlife), and Elkhorn Plain (Endangered Species).

Bakersfield District

CALIENTE RESOURCE AREA

COAST/VALLEY PLANNING AREA



General Location Map

Map No. 1-1

PURPOSE OF AND NEED FOR ACTION

The purpose of the proposed plan in this draft environmental impact statement (DEIS) is to identify what the Bureau of Land Management (hereinafter referred to as the Bureau or BLM) believes to be the best management approach for resolving identified resource management concerns and public issues. These concerns and issues determined the need for planning by pointing out management opportunities or problems associated with current management. The issues and goals to address the issues are presented on page 1-7 of this DEIS.

The plan proposes: 1) land use allocations; 2) broad production goals; and 3) restrictions on some resource programs to protect important resource values. In most cases, it does not describe or analyze all the specific actions that will be taken to implement the proposals. Specific actions will be described and analyzed in site-specific activity plans following approval of the final plan.

In addition to meeting the requirements in the Federal Land Policy and Management Act of 1976 for land use planning (43 CFR Part 1600), the resource management plan satisfies the BLM's policy to: (1) respond to the court mandate (Natural Resources Defense Council et al. versus Andrus (448 F. Supp. 802 (1978)) that requires the BLM to complete a livestock grazing EIS; (2) identify public land as open, closed, or limited for off-road vehicle use (Executive Order 11644 and 11989); and (3) increase overall efficiency and effectiveness of public land management by identifying public land for potential land tenure adjustment.

LAND USE ISSUES AND GOALS

The following issues[1] and goals were developed in the early stages of the Resource Management Plan (RMP) process by BLM, through public input and coordination with state, county, and local governments. These elements guided the planning process.

One resource, wildlife, has not been included as an issue because this resource will be affected in all the identified issues (see footnote below). Including wildlife as an issue would be repetitious.

[1] An issue is a matter of (widespread) interest and/or controversy about the allocation, use, production, protection, and management practices (existing and potential) of the public land. An issue is usually formed from a group of concerns about a topic (California Bureau of Planning System Hankbook - 1982). Therefore, the issue (topic) may incorporate more than one resource as it relates to that issue or a specific resource may be incorporated into more than one issue. For example: 1) the livestock grazing issue includes cultural resources, hydrology, recreation, soils, vegetation, wildlife (to include fisheries and Rare, Threatened, and Endangered (RT and E) Species - plants and animals), etc., and 2) the wildlife resource may be referred to in all issues:

Land Tenure Adjustment - habitat needs, RT and E species, etc.;
Livestock Grazing - deer, upland game, forage/cover/water needs, etc.;
Minerals - habitat needs, RT and E species, Special Category Areas, etc.;
Recreation Use - hunting, birdwatching, etc.;
Special Land and Resource Use Needs - ACEC designations, spraying restrictions, National Cooperative Land and Wildlife Management Areas, etc;
Water Quality and Watershed Protection - riparian and aquatic habitat, water needs, etc.

ISSUES

A. Land Tenure Adjustment

There is public demand in the planning area for purchase, acquisition through exchange, or use through leasing of public land. Areas having potential for these or other actions allowed in Section 302 of the Federal Land Policy and Management Act (FLPMA) must be identified. Leases, sales, and exchanges could be used to eliminate scattered public land patterns and/or improve the effectiveness of their administration.

B. Livestock Grazing

The public, other governmental agencies, and special interest groups have expressed a concern that cattle grazing is adversely impacting upland game habitat. In addition, comments have been received that cattle grazing is adversely affecting other resource values (e.g. , cultural). Annually, about 3,800 head of cattle and horses, and 4,300 sheep graze on public land with 30,505 AUMs authorized. The fact that Coast/Valley is predominantly annual range complicates range management by making the traditional methods (SVIM) for determining range capabilities and limitations unreliable. Annual forage/cover availability is directly related to the amount of annual rainfall and temperature since both of these factors may vary greatly from year to year. Thus, forage allocation between livestock, wildlife, and watershed protection must be flexible and easily adjustable. Ranchers have requested greater flexibility to adjust for variations in forage on the annual ranges. The valuable spring forage is a significant production cost factor in the western livestock markets.

C. Minerals

Public demand for saleable minerals (e.g., sand and gravel); locatable minerals (e.g., uranium, gypsum, and diatomaceous earth); and leasable minerals (e.g., oil and gas and geothermal) is great. Numerous conflicts (e.g., cultural, wildlife, federal and state listed rare, threatened, or endangered species), arise from the sometimes total commitment to the mineral resource.

D. Recreation Use

Various areas offer unique opportunities for the development of coordinated recreational programs with the U.S. Forest Service to prevent duplication of effort and unwarranted expenditure of tax dollars. Recreational utilization is causing conflicts with other resources e.g., cultural resources protection and livestock control. The level of use of public land is placing increasing demands for visitor services and facilities. The entire recreation program must be evaluated to ensure that it responds to the needs of the public and is consistent with state, county, local, and other federal agency plans and commitments.

E. Special Land Resource Use Needs

There is a high level of demand for community and industrial expansion. As private land is developed, greater pressures are exerted on public land for support facilities and recreational opportunities. Other special needs include but are not limited to: both solid and septic waste disposal sites, disposal of nonhazardous oilfield waste, and fire management which includes prescribed burns, as identified by the public through county plans and by other agencies. Additional infrastructure development needs, such as: powerline rights-of-way, parks and public buildings, and building material sources, associated with community development.

F. Water Quality and Watershed Protection

Studies indicate that vegetative removal by a variety of resource uses e.g., grazing, vegetation manipulation, mining activities, road construction, recreational activity, etc., is contributing to water quality and watershed degradation which in turn affects the quality of the fisheries and aquatic habitats, etc. Sedimentation and non-point source pollution have been identified as significant problems by county and federal agencies, and local residents.

Note: Specific Legislative Mandates and Special Designations

Several pieces of legislation may cause conflicts with other resource utilization due to protective and/or restrictive requirements. The Endangered Species Act of 1973, as amended, requires the protection of all federally listed rare and endangered plants and animals. According to the Bureau of Land Management policy guidelines, those plants listed on the U.S. Fish and Wildlife Service Notice of Review (December, 1980) are to be fully protected. Cooperative agreements with California state government have extended protection to state listed plants and animals. The National Historic Preservation Act of 1966, as amended, the American Indian Religious Freedom Act of 1978, and the Archaeological Resource Protection Act of 1979, require that protection be given to cultural resources that may be impacted by federal actions. The Federal Land Policy and Management Act (FLPMA) requires that areas of critical environmental concern (ACEC) be given special management consideration in planning and implementation of plans. Under Section 603 of FLPMA, public land must be assessed for suitability as wilderness areas. Joint studies are required for areas where Bureau managed land is adjacent to other federal agencies potential or designated wilderness areas. Each of the above acts may restrict land use allocation and/or management options.

Goals

ISSUES	PLANNING GOALS
A. Land Tenure Adjustment	a. Eliminate, wherever possible, the scattered land patterns common to public land and thereby facilitate more effective public land administration and management. This may be accomplished by various methods including but not limited to exchange, purchase, and sale.
	b. Provide for, where applicable, the lease of public land for use, occupancy, and development for habitation, cultivation, and development of small trade or manufacturing concerns.
B. Livestock Grazing	Allocate forage/cover for livestock, deer, and upland game to attain optimum production levels within constraints of sound economics while minimizing impacts to water quality, watershed, and aesthetic values.
C. Minerals	Encourage economically and environmentally sound exploration and development as a means of contributing to the Nation's need for domestic mineral resources.

D. Recreation Use	Provide for the recreational needs of the public through the use of public land while protecting the land's environmental quality and taking due consideration of the needs and rights of adjacent landowners.
E. Special Land and Resource Use Needs	a. Respond to local government infrastructural requests for public land and resources for community expansion needs. Due consideration will be given to environmental and resource values of public land.
	b. Provide potential sites for both solid and septic waste as well as nonhazardous oilfield waste.
	c. Plan for prescribed burns to reduce potential combustible fuel levels to prevent uncontrolled wildfires, resulting in watershed degradation.
F. Water Quality and Water Protection	a. Manage resource utilization activities to levels approaching public demands and avoid critical watershed areas and water quality deterioration.
	b. Maintain a viable fisheries population and minimize impacts to aquatic flora and fauna.

DEVELOPMENT OF ALTERNATIVES

The Alternatives (Chapter 2) were developed using the following criteria:

Alternatives	Formulation Criteria
I	Provide for intensive environmental protection of wildlife habitat, vegetation diversity, aesthetics, watershed, and resource diversity. Limited consumptive uses e.g., mineral development and livestock grazing will be permitted under the applicable statutes.
IA	Livestock grazing (AUM consumption) will not be authorized.
II	Encourage environmental protection including, but not limited to, wildlife habitat, aesthetics, vegetation diversity, and watershed. Allow for comsumptive uses, e.g., livestock grazing, mineral development in producing and identified potential areas within environmental constraints.
III	Encourage consumptive uses including oil and gas, minerals, livestock grazing, and land use authorizations on all public land. Provide for minimal environmental protection of other competing resource values e.g., wildlife habitat, aesthetics, vegetation diversity, within the constraints of the National Environmental Policy Act (NEPA).
IV	Continue present management (No Action).

Then each alternative was evaluated, with particular emphasis on the significant issues involved, according to the degree to which it:

1. maintains, enhances, or promotes the social well being of the individuals, families, and communities in the area. Helps to preserve those social, economic, and environmental elements determined important by residents of the planning area;

2. provides for land tenure or use actions which will allow for improved federal land management and meet the needs of people;

3. meets BLM management objectives and policy of maintaining and providing sustained yield of vegetation for consumptive and nonconsumptive uses;

4. meets user demands for goods and services from public land, within constraints of multiple use management;

5. is responsive to the resolution of the maximum number of public issues and management concerns;

6. is consistent with state and local government plans, including air and water quality, other agency management goals and objectives, existing land use plans, and transportation and fire management.

After evaluating each alternative, the Proposed Action was developed consisting of one or a combination of alternatives for each Management Area (MA). Impacts were then assessed for the Proposed Action. This approach encouraged an unbiased analysis of the alternatives and realized the benefits from analyzing impacts prior to developing a Proposed Action.

PLANNING AND ENVIRONMENTAL ANALYSIS PROCESS

The Proposed Action contains three stages described below: information gathering, land use planning, and implementation of the plan. Public participation is an important part of each stage and plays a vital role in the entire planning process.

1. Information Gathering

   - Issues and data needs
   - Resource inventory
   - Data assimilation and analysis

2. Land Use Planning

   - Analysis of issues and present management practices
   - Formulation of alternative land uses (issue driven)
   - Initial estimation of effects of each alternative
   - Selection of proposed action
   - Preparation of Draft Environmental Impact Statement (DEIS)
   - Preparation of Final Environmental Impact Statement (FEIS) identifying preferred plan
   - Preparation of the Record of Decision (ROD) which is the final Resource Management Plan (RMP)

   The ROD will be issued following publication of the FEIS on the proposed RMP. The ROD will be the approval authority for implementing the land use allocations, broad production goals, and other actions contained in the final RMP.

   The printed ROD will be the final RMP. The final RMP will contain the decisions on all the land use recommendations proposed in the FEIS. It will also contain implementation criteria. The implementation criteria will guide the order in which projects are implemented.

   A monitoring plan for the RMP will be developed following final approval. This plan will include a review every year of the RMP to determine if it still meets the objectives and goals, public demands, and resource needs as identified in the planning area.

   Every five years, consolidation of adjustments as a result of the annual reviews will be accomplished by a plan amendment or other means identified in the monitoring plan.

The following are additional planning steps related to the Livestock Grazing issue:

- Initial Rangeland Program Summary (RPS) developed, containing proposed grazing decisions;
- Affected operators consulted on proposed grazing decisions and management objectives;
- RPS Update issued, reflecting modification or verification of proposed grazing decisions based on consultation and monitoring of rangeland conditions;
- Final grazing decisions issued or mutual management agreement reached.

3. Implementation

- Resource activity plans such as Allotment Management Plans and Habitat Management Plans will be developed
- Environmental analyses will be completed before starting any project
- Implementation schedules will be tied to the budget process and will be applied annually to determine the projects that will be accomplished.

WILDERNESS PROGRAM

A portion of the public land in the planning area is presently being reviewed for wilderness suitability under a process separate from this RMP (Draft EIS for Preliminary Wilderness Recommendations for Central California Study Areas, 1982). The Wilderness Study Area (WSA) under review in the planning area is:

Caliente, CA-010-042	- 19,018 acres.

Wilderness consideration for this area will be confined to the Central California Wilderness Study effort, and wilderness management decisions for this area will be consistent with those developed through the wilderness study effort.

The Caliente WSA was recommended unsuitable for wilderness designation in the Draft Central California EIS. This recommendation will not be considered further in this RMP and EIS. The preliminary Final Wilderness EIS is undergoing administrative review and will be finalized at a later date by the Secretary of the Interior. Until Congress makes a wilderness decision on the area, management of the Wilderness Study Area will be constrained by the Interim Management Policy and Guidelines for Lands under Wilderness Review (December, 1979).

Some portions of the planning area were released from further wilderness study as a result of implementation of the Secretary's Order - December 30, 1982. However, as a result of court proceedings (Sierra Club, et al. vs. Watt, et al. - No. CIVIL S-83-035 RAR) these areas will be managed according to WO Instruction Memorandum No. 83-613 until such time as a final ruling is made. These areas are as follows:

Tepusquet Peak, CA-010-007	- 1,024 acres
Garcia Mountain, CA-010-012	- 494 acres

Black Mountain, CA-010-020 - 150 acres
Spoor Canyon, CA-010-036 - 240 acres
Cuyama, CA-010-037 - 1,014 acres
Machesna, CA-010-108 - 720 acres

The planning area also includes one designated wilderness area, Santa Lucia Wilderness Area of which a small portion is located on public land. This wilderness area will continue to be managed according to the Wilderness Act of 1964 and the enabling legislation in the Endangered American Wilderness Act of 1978.

GRAZING MANAGEMENT FOR MEDITERRANEAN ANNUAL RANGES

The RMP is unique in that several alternatives authorizes grazing by livestock in terms of residual mulch rather than by the traditional Animal Unit Month (AUM) allocation. Managing for mulch would allow the authorized grazing use to be adjusted with the annual forage production. Increased grazing would be allowed on good forage years and less grazing would be allowed on poor forage years. Livestock would be removed when the desired residual mulch level is reached. Mulch levels in the tables in Chapter 2 are expressed in pounds of residual forage per acre (air dry).

With the traditional AUM allocation, the theoretical average yearly production level is estimated and grazing authorized at that level. Livestock are removed from the allotment when the authorized use level is reached, with no immediate compensation for the variable production.

Mulch management will only be considered for Category "I" allotments at this time. (See "selective Management Categories" - Appendix 2). Active preference levels on these allotments will not be initially adjusted. At the end of the grazing season, or when the mulch level specified had been reached, livestock will come off the allotment. The grazing operator will submit an actual use grazing record that shows the number of livestock grazed and the length of grazing time. This actual use record will be used to compute the annual grazing bill. Livestock grazing will not begin again until the next year annual forage growth begins, unless full utilization was not made in the previous grazing season.

CHAPTER 2

ALTERNATIVES

Chapter 2

ALTERNATIVES

INTRODUCTION

The alternatives were developed for each Management Area by a core planning team, based on the issues and goals listed in Chapter 1, guided by the alternative formulation criteria and making full use of public consultation, coordination with other agencies, and evaluation by resource specialists.

Alternative II (Combined Emphasis), which is the Proposed Action for all issues except Livestock Grazing, was selected following analysis of all alternatives.

The alternatives fall within the following framework:

-Alternatives I - III represent a spread from protection-oriented to production-oriented resource management;
-Alternative IA is the No Grazing alternative for livestock grazing. For all other resources this alternative is the same as Alternative I;
-Alternative IV is the Present Management or No Action alternative (Proposed Action for Livestock Grazing only).

DESCRIPTION OF ALTERNATIVES

The following tables describe each alternative by Management Area. Cummulative alternatives for the planning area are summarized in Table S-1 on page .

The maps listed on page xxi (List of Maps) should be used in conjunction with the alternative descriptions. More detailed maps are available for review in the Caliente Resource Area Office.

TABLE 2-1: ALTERNATIVES FOR MANAGEMENT AREA 1: COAST

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Land Tenure Adjustment	No disposal of public land.	Approximately 16,410 acres potentially suitable for land tenure adjustment.	Approximately 24,320 acres potentially suitable for land tenure adjustment.	Same as Alternative I
Livestock Grazing[1]	M Category (220 Total AUMs) Santa Teresa (0060)-220 AUMs season long C Category (184 Total AUMs) Freeborn Mountain (0007)- 10 AUMs season long Santa Rita (0010)- 16 AUMs season long -- (0026)- 44 AUMs season long Hubbard Hill (0032)- 15 AUMs from 12/01-05/30 Rocky Butte (0067)-64 AUMs from 03/01-11/01 Paso Robles (0108)-3 AUMs from 01/01-03/31 Cypress Mountain (0112)- 32 AUMs season long	M Category (298 Total AUMs) Santa Teresa (0060)-298 AUMs season long C Category (201 Total AUMs) Freeborn Mountain (0007)- 10 AUMs season long Santa Rita (0010)- 16 AUMs season long -- (0026)-49 AUMs season long Hubbard Hill (0032)- 15 AUMs from 12/01-05/30 Rocky Butte (0067)-72 AUMs from 03/01-11/01 Paso Robles (0108)-3 AUMs from 01/01-03/31 Cypress Mountain (0112)- 36 AUMs season Long	M Category (371 Total AUMs) Santa Teresa (0060)-371 AUMs season long C Category (219 Total AUMs) Freeborn Mountain (0007)- 10 AUMs season long Santa Rita (0010)- 16 AUMs season long -- (0026)-55 AUMs season long Hubbard Hill (0032)- 15 AUMs from 12/01-05/30 Rocky Butte (0067)-80 AUMs from 03/01-11/01 Paso Robles (0108)-3 AUMs from 01/01-03/31 Cypress Mountain (0112)- 40 AUMs season long	M Category (109 Total AUMs) Santa Teresa (0060)-109 AUMs season long C Category (1,166 Total AUMs) Freeborn Mountain (0007)- 344 AUMs season long Santa Rita (0010)- 16 AUMs season long -- (0026)-55 AUMs season long Hubbard Hill (0032)- 628 AUMs from 12/01-05/30 Rocky Butte (0067)-80 AUMs from 03/01-11/01 Paso Robles (0108)-3 AUMs from 01/01-03/31 Cypress Mountain (0112)- 40 AUMs season long
	- No additional grazing allotments will be allocated.	- New grazing allotments handled on a case-by-case basis on application. On unallotted areas on potentially suitable acres will be burned for grazing.	- Offer all grazable land and burn all potentially suitable areas (5,560 acres) to set up new allotments.	- Same as Alternative II.
	Support Needs: - BMP for all allotments - Vegetation manipulation of 800 acres in 0060	Support Needs: - BMP for all allotments - Vegetation manipulation of 1,200 acres in 0060 - Develop 1 reservoir in 0060	Support Needs: - BMP for all allotments - Vegetation manipulation of 1,572 acres in 0060 - Develop 1 reservoir and construct 1 spring development in 0060	Support Needs: Same as Alternative III
	Alternative IA: No authorized livestock grazing (1,275 AUMs cancelled).			
Minerals	OIL AND GAS Prohibit all oil and gas leasing and exploration in areas of critical/proposed critical Threatened and Endangered species (T and E) habitat, ACECs, Class I VRM areas, areas where known cultural sites occur, and special scientific or public interest (hereinafter Special Category Areas-see Map 2-1) by withdrawal or classification procedures. Allow exploration and pre/post-leasing in all other areas to encourage exploration and development in a manner which recognizes sound reclamation practices within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a Notice of Intent (NOI) will be allowed within Special Category Areas when surface impacts can be made negligible through development of stipulations to the NOI. All other areas will be managed to encourage exploration operations in a manner that recognizes sound reclamation practices, within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a NOI will be allowed within Special Category Areas in a manner that will not impact resources legally mandated for protection and rehabilitation is such that the impact of the exploration activity is negligible. All other areas will be managed to encourage exploration operations in a manner that recognizes sound reclamation practices, within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a NOI are allowed on all public land subject to the terms and stipulations of the NOI.
		2. Pre-lease - Leases will be allowed within Special Category Areas with a "no surface occupancy" (NSO) stipulation if: A)the application is for land within a known geologic structure (KGS) of a producing oil and gas field; or B)if the lease offer is within the target range of a slant or directional drill originating within a KGS and the lease offer is outside the KGS. If conditions A or B cannot be met, no leasing will be allowed. All other public land will be leased within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. Pre-lease - Leasing will be allowed within Special Category Area with special stipulations to minimize impacts to resources which are legally mandated to be protected. Those areas where development of stipulations cannot protect resource values that are legally mandated to be protected will be issued with a NSO stipulation. All other public land will be leased within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. Pre-lease - Leasing is not allowed in WSAs. All other public land is leased whenever feasible with special stipulations to minimize impacts to resources which are legally mandated to be protected and with standard lease conditions within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.

1/ See Appendix 3 for Selective Management Guidelines.

TABLE 2-1 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 1: COAST

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)		3. Post-lease activities will not occur on leases issued under NSO. Leases issued on other land will be managed in accordance with the terms of the lease. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	3. a) Post-lease activities conducted within Special Category Areas will be managed in accordance with the special stipulations of the lease and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of post-lease activities within Special Category Areas will be conducted in a manner as to leave the area in a condition that is substantially unnoticable from original conditions and consistent with the purposes of the designation. Post-lease activities will not occur on leases with a NSO stipulation. b) Post-lease activities conducted on other areas will be managed in accordance with the terms of the lease. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	3. Post-lease activities conducted on public land are managed in accordance with the terms of the lease. Rehabilitation is conducted on a case-by-case basis to restore disturbed areas to as near as practical to the original contour and vegetative stability.
	LOCATABLE MINERALS Withdraw or classify Special Category Areas to prohibit mineral location. Claims in Special Category Areas will be examined to determine if they are based on a valid discovery. Memoranda of Understanding (MOUs) between the state lead agencies under Surface Mining and Reclamation Act (SMARA) and BLM will be developed to provide a coordinated management role in surface management of mining activities. On all other public land manage surface activities on mineral locations within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	LOCATABLE MINERALS 1. Areas with unique resource values which are legally mandated to be protected will be withdrawn from mineral entry. All other public land will be free and open to exploration and entry. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities. 3. Areas designated as ACECs will be managed in accordance with stipulations developed for an approved Plan of Operations. Mining locations within areas withdrawn from mineral entry will be examined to determine if a valid discovery has been made. Management of surface disturbance from exploration activities or development on mining claim locations will be conducted within legal constraints and Standard Operating Procedures (SOP) to prevent undue and unnecessary degradation.	LOCATABLE MINERALS 1. All public land will remain free and open to mineral exploration, location, and development. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities. 3. Management of surface disturbance activities or development on mining claim locations will be conducted within legal constraints and SOP to prevent undue and unnecessary degradation.	LOCATABLE MINERALS 1. All public land not previously withdrawn from mineral location is open to mineral exploration, location, and development. Management of surface disturbing activities and development on mining claim locations will be conducted within legal constraints to prevent undue and unnecessary degradation. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities.
	OTHER LEASABLE AND SALEABLE MINERALS Withdraw or classify Special Category Areas to prohibit issuance of mineral exploration permits and mineral leasing. Prohibit development of mineral material sites within the above Special Category Areas. All other areas will be managed within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OTHER LEASABLE AND SALEABLE MINERALS 1. Geothermal and mineral leasing exploration permits will be authorized for exploration activities conducted on Special Category Areas if the permit is stipulated to cause negligible surface disturbance. When the stipulations to the permit cannot prevent surface disturbances, then the permit will be issued with a NSO, or the area may be withdrawn from mineral leasing. Mineral material exploration will will not be allowed in Special Category Areas.	OTHER LEASABLE AND SALEABLE MINERALS 1. Geothermal and mineral leasing exploration permits will be authorized in Special Category Areas legally mandated to be protected if the permit is stipulated to allow surface disturbances which can be rehabilitated to a substantially unnoticable condition consistent with the purposes of the designation. If the permit cannot be issued to prevent unnoticable disturbances after reclamation, then the permit will be issued with a NSO stipulation on those Special Category Areas.	OTHER LEASABLE AND SALEABLE MINERALS 1. All public land not previously withdrawn from mineral leasing is open to permitted exploration activities within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.

TABLE 2-1 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 1: COAST

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)		All other public land will be open to permitted exploration activities within the guidelines and constraints of pertinent federal, state and local laws, regulations, and orders.	Mineral material disposal exploration and operations will be allowed if it can be demonstrated that rehabilitation will be conducted in a manner to be substantially unnoticable. All other public land will remain open to permitted exploration activities within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	
		2. a) Pre-lease - Preference Right and Competitive Leases will be issued in Special Category Areas only if they can be stipulated with a NSO and only if the deposit is proven economically valuable or within a Known Geothermal Resource Area (KGRA) or Known Leasing Area (KLA). Only that land within Special Category Areas which can be developed by drilling or underground mining from a KGRA or KLA, and in the case of mineral leasing, have been proven economically valuable, will be leased with a NSO. Minerals on all other public land will be leased or disposed of within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. a) Pre-lease - Preference Right and Competitive Leases will be issued in Special Category Areas if stipulations to the lease allow development activities to be conducted that will minimize impacts to resources which are legally mandated to be protected. Those areas where development of stipulations to the lease will not protect resource values that are legally mandated to be protected will be issued with a NSO stipulation. Minerals on all other public land will be leased or disposed of within the guidelines and constraints of pertinent federal, state, and local laws,regulations, and orders.	2. a) Leases are issued on all public land not previously segregated from mineral leasing according to the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.
		b) Mineral material disposals will be authorized in accordance with pertinent federal, state and local laws, regulations, and orders on Special Category Areas only if an identified deposit is not available within an economic limit of haul and is the result of emergency public works activities. Mineral material on other public land will be disposed of in accordance with pertinent federal state, and local laws, regulations, and orders.	b) Mineral material disposals will be authorized in accordance with pertinent federal, state, and local laws, regulations, and orders on Special Category Areas if no deposit is known within the market area, and disposal will be in the public interest. Mineral material on other public land will be disposed of in accordance with pertinent federal, state, and local laws, regulations, and orders.	b) Mineral materials on public land are disposed of in accordance with pertinent federal, state, and local laws, regulations, and orders. The site is rehabilitated when its useful life is over so that contouring blends with that of the surrounding topography and stable vegetative cover is established.
		3. a) Post-lease activities will be managed in accordance with the terms of the lease, stipulations to the plan of development or operation, and in conformance with pertinent federal, state, local laws, regulations, and orders. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	3. a) Post-lease activities will be managed in accordance with the terms of the lease, stipulations developed for plan of exploration or operation approvals, and in conformance with pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of Special Category Areas will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Rehabilitation on other public land will be conducted according to sound reclamation practices.	3. a) Post-lease activities will be managed in accordance with the stipulations developed for approved exploration or operating plans, and in conformance with pertinent federal, state, and local laws, regulations, and orders. Disturbed areas are rehabilitated after mining to conform with surrounding topography and stable vegetative cover is established.
		b) Mineral material disposal operations on Special Category Areas for emergency actions will be managed to minimize adverse impacts to the special resource values in accordance with pertinent federal, state, and local laws, regulations, and orders. Rehabilitation will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations.	b) Mineral material disposal operations on Special Category Areas will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations.	b) Mineral materials disposal operations on public land are managed in accordance with the term of the contract/permit and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined areas blends with that of the surrounding topography and stable vegetative cover is established.

TABLE 2-1 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 1: COAST

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)		Mineral material disposal operations on other public land will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined operation areas will be conducted according to sound reclamation practices.	Mineral material disposal operations on other public land will be managed in accordance with the terms of the permit/contract and and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined operation areas will be conducted according to sound reclamation practices.	
	Support Needs: - Geology, Energy, and Minerals (GEM) assessments - Validity examinations of mineral locations within Special Category Areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - GEM assessments - Inventory of mineral material locations within Special Category Areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - GEM assessments - Inventory of mineral material disposal areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - MOUs' with county(s) (per SMARA
Recreation Use	Designate MA limited to ORV use (existing roads, ways, and trails only - 100 miles). Cooperatively manage with the Forest Service public land near the Rinconada Mine for maximum protection of the historic resource while still allowing other recreation use limited to existing trails only.	Designate MA limited to ORV use (existing roads, ways and trails only - 100 miles). Cooperatively manage with the Forest Service public land near the Rinconada Mine for the protection of the historic resource while still allowing other recreation use as long as impacts to the historic resource can be avoided.	Designate MA open to ORV use (45,490 acres). Manage public land near the Riconada Mine for the protection of the historic resource while still allowing other recreation use as long as impacts to the historic resource can be mitigated.	MA undesignated ORV use and open to other recreational uses.
Special Land and Resource Use Needs	No pesticide or herbicide (e.g., malathion) spraying will be allowed within T and E critical/proposed critical habitat, within ½ mile of wildlife guzzlers, and from April through June in upland game habitat (5,000 acres).	Pesticide or herbicide (e.g., malathion) spraying will only be allowed after a "no jeopardy" decision by U.S. Fish and Wildlife Service for those parcels within T and E critical/proposed critical habitat. Spraying will not be allowed with ½ mile of wildlife guzzlers and from April through June in upland game habitat (5,000 acres).	Same as Alternative II.	A statewide MOU between the Bureau and California Department of Food and Agriculture regarding pesticide spraying has been approved. This MOU requires that monitoring of effects takes place. Supplemental MOUs will be developed at the local level and will meet the requirements of the Endandered Species Act.
Water Quality and Watershed Protection	Determine potential impacts from proposed land uses on watershed condition before authorizing use. Permit land uses which will allow watershed condition to be maintained and, where appropriate, improved. Maintain stable slopes healthy riparian habitat, and good water quality. Prevent accelerated erosion which causes on-site damage to vegetation, soil fertility and permeability, and downstream damage from sedimentation and poorer water quality. No construction activities will be permitted on soils with high erosion hazard ratings, where slopes exceed 30% (32,010 acres), or within the watershed of tributaries to Snake Creek (thence tributaries to Nacimiento Reservoir - 420 acres), or within the watershed of intermittent streams which are directly tributary to Nacimiento and Santa Margarita Reservoirs (980 acres), Support Needs: BMPs Fence spring sources where needed	Same as Alternative I except: A) watershed condition will be maintained but not improved. B) No construction activities where slopes exceed 50% (26,340 acres).	Same as Alternative I except: A) watershed condition will be maintained but not improved. B) No construction activities where slopes exceed 70% (20,855 acres). C) Construction may be allowed within the watershed of tributaries to Snake Creek.	Potential impacts from proposed use are evaluated on a case-by-case basis. Impacts are mitigated.

TABLE 2-2: ALTERNATIVES FOR MANAGEMENT AREA 2: CUYAMA

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Land Tenure Adjustment	No disposal of public land.	Approximately 270 acres potentially suitable for land tenure adjustment.	Approximately 1,720 acres potentially suitable for land tenure adjustment.	Same as Alternative I.
Livestock Grazing[1]	M Category Santa Barbara Canyon (0050)-106 AUMs from 03/01-05/01 C Category Bitter Creek Drainage (0099)-60 AUMs season long Alternative IA: No authorized livestock grazing (178 AUMs cancelled).	M Category Santa Barbara Canyon (0050)-112 AUMs from 03/01-05/01 C Category Bitter Creek Drainage (0099)-60 AUMs season long	M Category Santa Barbara Canyon (0050)-118 AUMs from 03/01-05/01 C Category Bitter Creek Drainage (0099)-60 AUMs season long	M Category Santa Barbara Canyon (0050)-118 AUMs from 03/01-05/01 C Category Bitter Creek Drainage (0099)-60 AUMs season long
Minerals	OIL AND GAS Prohibit all oil and gas leasing and exploration in areas of critical/proposed critical Threatened and Endangered species (T and E) habitat, ACECs, Class I VRM areas, areas where known cultural sites occur, and special scientific or public interest (hereinafter Special Category Areas-see Map 2-1) by withdrawal or classification procedures. Allow exploration and pre/post-leasing in all other areas to encourage exploration and development in a manner which recognizes sound reclamation practices within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a Notice of Intent (NOI) will be allowed within Special Category Areas when surface impacts can be made negligible through development of stipulations to the NOI. All other areas will be managed to encourage exploration operations in a manner that recognizes sound reclamation practices, within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a NOI will be allowed within Special Category Areas in a manner that will not impact resources legally mandated for protection and rehabilitation is such that the impact of the exploration activity is negligible. All other areas will be managed to encourage exploration operations in a manner that recognizes sound reclamation practices, within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a NOI are allowed on all public land subject to the terms and stipulations of the NOI.
		2. Pre-lease - Leases will be allowed within Special Category Areas with a "no surface occupancy" (NSO) stipulation if: A)the application is for land within a known geologic structure (KGS) of a producing oil and gas field; or B)if the lease offer is within the target range of a slant or directional drill originating within a KGS and the lease offer is outside the KGS. If conditions A or B cannot be met, no leasing will be allowed. All other public land will be leased within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. Pre-lease - Leasing will be allowed within Special Category Areas with special stipulations to minimize impacts to resources which are legally mandated to be protected. Those areas where development of stipulations cannot protect resource values that are legally mandated to be protected will be issued with a NSO stipulation. All other public land will be leased within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. Pre-lease - Leasing is not allowed in WSAs. All other public land is leased whenever feasible with special stipulations to minimize impacts to resources which are legally mandated to be protected and with standard lease conditions within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.
		3. Post-lease activities will not occur on leases issued under NSO. Leases issued on other land will be managed in accordance with the terms of the lease. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	3. a) Post-lease activities conducted within Special Category Areas will be managed in accordance with the special stipulations of the lease and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of post-lease activities within Special Category Areas will be conducted in a manner as to leave the area in a condition that is substantially unnoticable from original conditions and consistent with the purposes of the designation. Post-lease activities will not occur on leases with a NSO stipulation. b) Post-lease activities conducted on other areas will be managed in accordance with the terms of the lease. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	3. Post-lease activities conducted on public land are managed in accordance with the terms of the lease. Rehabilitation is conducted on a case-by-case basis to restore disturbed areas to as near as practical to the original contour and vegetative stability.

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[1] See Appendix 3 for Selective Management Guidelines

TABLE 2-2 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 2: CUYAMA

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)	LOCATABLE MINERALS Withdraw or classify Special Category Areas to prohibit mineral location. Claims in Special Category Areas will be examined to determine if they are based on a valid discovery. Memoranda of Understanding (MOUs) between the state lead agencies under Surface Mining and Reclamation Act (SMARA) and BLM will be developed to provide a coordinated management role in surface management of mining activities. On all other public land manage surface activities on mineral locations within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	LOCATABLE MINERALS 1. Areas with unique resource values which are legally mandated to be protected will be withdrawn from mineral entry. All other public land will be free and open to exploration and entry. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities. 3. Areas designated as ACECs will be managed in accordance with stipulations developed for an approved Plan of Operations. Mining locations within areas withdrawn from mineral entry will be examined to determine if a valid discovery has been made. Management of surface disturbance from exploration activities or development on mining claim locations will be conducted within legal constraints and Standard Operating Procedures (SOP) to prevent undue and unnecessary degradation.	LOCATABLE MINERALS 1. All public land will remain free and open to mineral exploration, location, and development. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities. 3. Management of surface disturbance activities or development on mining claim locations will be conducted within legal constraints and SOP to prevent undue and unnecessary degradation.	LOCATABLE MINERALS 1. All public land not previously withdrawn from mineral location is open to mineral exploration, location, and development. Management of surface disturbing activities and development on mining claim locations will be conducted within legal constraints to prevent undue and unnecessary degradation. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities.
	OTHER LEASABLE AND SALEABLE MINERALS Withdraw or classify Special Category Areas to prohibit issuance of mineral exploration permits and mineral leasing. Prohibit development of mineral material sites within the above Special Category Areas. All other areas will be managed within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OTHER LEASABLE AND SALEABLE MINERALS 1. Geothermal and mineral leasing exploration permits will be authorized for exploration activities conducted on Special Category Areas if the permit is stipulated to cause negligible surface disturbance. When the stipulations to the permit cannot prevent surface disturbances, then the permit will be issued with a NSO, or the area may be withdrawn from mineral leasing. Mineral material exploration will will not be allowed in Special Category Areas. All other public land will be open to permitted exploration activities within the guidelines and constraints of pertinent federal, state and local laws, regulations, and orders.	OTHER LEASABLE AND SALEABLE MINERALS 1. Geothermal and mineral leasing exploration permits will be authorized in Special Category Areas legally mandated to be protected if the permit is stipulated to allow surface disturbances which can be rehabilitated to a substantially unnoticable condition consistent with the purposes of the designation. If the permit cannot be issued to prevent unnoticable disturbances after reclamation, then the permit will be issued with a NSO stipulation on those Special Category Areas. Mineral material disposal exploration and operations will be allowed if it can be demonstrated that rehabilitation will be conducted in a manner to be substantially unnoticable. All other public land will remain open to permitted exploration activities within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OTHER LEASABLE AND SALEABLE MINERALS 1. All public land not previously withdrawn from mineral leasing is open to permitted exploration activities within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.
		2. a) Pre-lease - Preference Right and Competitive Leases will be issued in Special Category Areas only if they can be stipulated with a NSO and only if the deposit is proven economically valuable or within a Known Geothermal Resource Area (KGRA) or Known Leasing Area (KLA). Only that land within Special Category Areas which can be developed by drilling or underground mining from a KGRA or KLA, and in the case of mineral leasing, have been proven economically valuable, will be leased with a NSO. Minerals on all other public land will be leased or disposed of within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. a) Pre-lease - Preference Right and Competitive Leases will be issued in Special Category Areas if stipulations to the lease allow development activities to be conducted that will minimize impacts to resources which are legally mandated to be protected. Those areas where development of stipulations to the lease will not protect resource values that are legally mandated to be protected will be issued with a NSO stipulation. Minerals on all other public land will be leased or disposed of within the guidelines and constraints of pertinent federal, state, and local laws,regulations, and orders.	2. a) Leases are issued on all public land not previously segregated from mineral leasing according to the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.

TABLE 2-2 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 2: CUYAMA

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)		b) Mineral material disposals will be authorized in accordance with pertinent federal, state and local laws, regulations, and orders on Special Category Areas only if an identified deposit is not available within an economic limit of haul and is the result of emergency public works activities. Mineral material on other public land will be disposed of in accordance with pertinent federal, state, and local laws, regulations, and orders.	b) Mineral material disposals will be authorized in accordance with pertinent federal, state, and local laws, regulations, and orders on Special Category Areas if no deposit is known within the market area, and disposal will be in the public interest. Mineral material on other public land will be disposed of in accordance with pertinent federal, state, and local laws, regulations, and orders.	b) Mineral materials on public land are disposed of in accordance with pertinent federal, state, and local laws, regulations, and orders. The site is rehabilitated when its useful life is over so that contouring blends with that of the surrounding topography and stable vegetative cover is established.
		3. a) Post-lease activities will be managed in accordance with the terms of the lease, stipulations to the plan of development or operation, and in conformance with pertinent federal, state, local laws, regulations, and orders. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	3. a) Post-lease activities will be managed in accordance with the terms of the lease, stipulations developed for plan of exploration or operation approvals, and in conformance with pertinent federal, state and local laws, regulations, and orders. Rehabilitation of Special Category Areas will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Rehabilitation on other public land will be conducted according to sound reclamation practices.	3. a) Post-lease activities will be managed in accordance with the stipulations developed for approved exploration or operating plans, and in conformance with pertinent federal, state, and local laws, regulations, and orders. Disturbed areas are rehabilitated after mining to conform with surrounding topography and stable vegetative cover is established.
		b) Mineral material disposal operations on Special Category Areas for emergency actions will be managed to minimize adverse impacts to the special resource values in accordance with pertinent federal, state, and local laws, regulations, and orders. Rehabilitation will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Mineral material disposal operations on other public land will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined operation areas will be conducted according to sound reclamation practices.	b) Mineral material disposal operations on Special Category Areas will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Mineral material disposal operations on other public land will be managed in accordance with the terms of the permit/contract and and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined operation areas will be conducted according to sound reclamation practices.	b) Mineral materials disposal operations on public land are managed in accordance with the term of the contract/permit and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined areas blends with that of the surrounding topography and stable vegetative cover is established.
	Support Needs: - Geology, Energy, and Minerals (GEM) assessments - Validity examinations of mineral locations within Special Category Areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - GEM assessments - Inventory of mineral material locations within Special Category Areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - GEM assessments - Inventory of mineral material disposal areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - MOUs with county(s) (per SMARA)
Recreation Use	Close public land in Ballinger Canyon to ORV use (2,040 acres), designate remaining portion of MA limited use (existing roads, ways, and trails only - 40 miles). Manage MA open to all other recreation uses.	Designate MA limited ORV use (existing roads, ways, and trails only - 40 miles). Manage MA open to all other recreation uses.	Designate MA open to ORV use (7,220 acres). Manage MA open all other recreation uses.	MA undesignated ORV use and open to all recreation uses.
Special Land and Resource Use Needs	No pesticide or herbicide (e.g., malathion) spraying will be allowed within T and E critical/proposed critical habitat, within ½ mile of wildlife guzzlers, and from April through June in upland game habitat (500 acres).	Pesticide or herbicide (e.g., malathion) spraying will only be allowed after a "no jeopardy" decision by U.S. Fish and Wildlife for those parcels within T and E critical/proposed critical habitat. Spraying will not be	Same as Alternative II.	A statewide MOU between the Bureau and California Department of Food and Agriculture regarding pesticide spraying has been approved. This MOU requires that monitoring of effects takes place. Supple-

TABLE 2-2 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 2: CUYAMA

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Special Land and Resource Use Needs (cont.)		allowed within ½ mile of wildlife guzzlers and from April through June in upland game habitat (500 acres).		mental MOUs will be developed at the local level and will meet the requirements of the Endangered Species Act.
Water Quality and Watershed Protection	Determine potential impacts from proposed land uses on watershed condition before authorizing use. Permit land uses which will allow watershed condition to be maintained. Maintain stable slopes and prevent erosion which causes on-site damage to vegetation, soil fertility and permeability, and downstream drainage from sedimentation and poorer water quality. No construction will be permitted on soils with high erosion hazard ratings and where slopes exceed 30% (2,070 acres). Protect all existing water sources. Support Needs: - BMP - Fencing wherever needed to protect watersources	Same as Alternative I except: A) No construction activities where slopes exceed 50% (1,000 acres). B) Protect all primary water sources and allow use of secondary sources.	Same as Alternative I except: No construction activities where slopes exceed 70% (207 acres).	Potential impacts from proposed use are evaluated on a case-by-case basis. Impacts are mitigated.

TABLE 2-3: ALTERNATIVES FOR MANAGEMENT AREA 3: POINT SAL

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals	Withdraw MA from operation of the mineral leasing and mining laws.	Allow mineral exploration with stipulations to prevent surface disturbances. Allow leasing with no surface occupancy. Manage surface mining operations in conformance with 43 CFR 3809.1-4 in order to prevent undue and unnecessary degradation.	Allow MA to be free and open to the mineral leasing and mining laws. Manage operations so as to prevent undue and unnecessary degradation, and to conform with terms of the lease/permit, and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation is to be managed in conformance with sound reclamation practices	Manage MA to preclude oil and gas exploration and development. MA free and open to all other mineral leasing and mining.
Recreation Use	Designate MA closed to ORV use. Manage MA closed to all other recreation uses. Support Needs: - Fence MA access	Designate MA closed to ORV use. Manage MA open to all other recreation uses.	Designate MA limited to ORV use (existing roads, ways, and trails only - 0.5 mile). Manage MA open to all other recreation uses.	MA undesignated ORV use and open to all other recreation uses.
Special Land and Resource Use Needs	Designate MA as an ACEC and manage for maximum protection of aesthetics, cultural resources, the geologic formation, Threatened and Endangered (T and E) species, and wildlife so that no disturbances to those resources occur at the expense of all other resource development. Withdraw MA from entry/appropriation and leasing. Support Needs: - Cadastral Survey	Designate MA as an ACEC and manage for maximum protection of aesthetics, cultural resources, the geologic formation, T and E species, and wildlife while still allowing minimal activities (e.g., walk-in recreation). Withdraw MA from entry/appropriation and leasing. Support Needs: - Cadastral Survey	Manage for the protection of aesthetics, cultural resources, the geologic formation, and T and E species while still allowing for other resource development. Support Needs: - Cadastral Survey	Maintain area in its natural state.

TABLE 2-4: ALTERNATIVES FOR MANAGEMENT AREA 4: SODA LAKE

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Livestock Grazing	- No grazing allotments will be authorized.	- No grazing allotments will be authorized.	- Offer grazable land (760 acres) for new allotment(s).	- New grazing allotments handled on a case-by-case basis on application.
Minerals	Withdraw MA from operation of the mineral leasing and mining laws.	Allow mineral exploration with stipulations to prevent surface disturbances. Allow leasing with no surface occupancy. Manage surface mining operations in conformance with 43 CFR 3809.1-4 in order to prevent undue and unnecessary degradation.	Allow the MA to be free and open to the mineral leasing and mining laws. Manage operations so as to prevent undue and unnecessary degradation, and to conform with terms of the lease/permit and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation is to be managed in conformance with sound reclamation practices.	Manage MA to preclude oil and gas exploration and development. MA free and open to all other mineral leasing.
Recreation Use	Designate MA closed to ORV use (except for country roads) (2,970 acres). Manage MA closed to all other recreation uses.	Designate MA open to limited ORV use (existing roads, ways, and trails only - 10 miles). Manage MA open to all other recreation uses.	Designate MA open to limited ORV use (existing roads, ways, and trails only - 10 miles). Manage MA open to all other recreation uses.	MA undesignated ORV use and manage open to all other recreation uses.
Special Land and Resource Use Needs	Designate MA as an ACEC and cooperatively manage with a non-federal environmental organization (e.g., Nature Conservancy) and/or other agencies for maximum protection of aesthetics, cultural resources, T and E species, and wildlife so that no disturbances to those resources occur at the expense of all other resource development. Withdraw MA from entry/appropriation and leasing.	Designate MA as an ACEC and cooperatively manage with a non-federal environmental organization (e.g., Nature Conservancy) and/or other agencies for maximum protection of aesthetics, cultural resources, T and E species, and wildlife while still allowing minimal activities (e.g., recreation, temporary short term uses). Withdraw MA from entry/appropriation and leasing.	Manage MA for the protection of aesthetics, cultural resources, and T and E species while still allowing for other resource development.	Manage according to the Habitat Management Plan guidelines as directed.
	Support needs: - Modified fire suppression plan (2,970 acres) - Fencing - Coordinated Management Agreement(s)	Support Needs: Same as Alternative I	Support Needs: Same as Alternative I	Support Needs: - Fencing - Guzzler - Parking lots, trails - Maintenance

TABLE 2-5: ALTERNATIVES FOR MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Land Tenure Adjustment	No disposal of public land.	Approximately 2,010 acres potentially suitable for land tenure adjustment.	Approximately 16,060 acres potentially suitable for land tenure adjustment.	Same as Alternative I.
Livestock Grazing[1/]	I Category	I Category	I Category	I Category (20,553 Total AUMs)
	North Temblor (0015)-season long 800 lbs mulch/ac for slopes 0 - 25% 900 lbs mulch/ac for slopes 26 - 50% 1000 lbs mulch/ac for slopes 51 - 75% 1100 lbs mulch/ac for slopes 76 - 100%	North Temblor (0015)-season long 500 lbs mulch/ac for slopes 0 - 25% 600 lbs mulch/ac for slopes 26 - 50% 700 lbs mulch/ac for slopes 51 - 75% 800 lbs mulch/ac for slopes 76 - 100%	North Temblor (0015)-season long 300 lbs mulch/ac for slopes 0 - 25% 400 lbs mulch/ac for slopes 26 - 50% 500 lbs mulch/ac for slopes 51 - 75% 600 lbs mulch/ac for slopes 76 - 100%	North Temblor (0015)-6,464 AUMs season long
	Sulphur Canyon (0031)- from 12/01-07/31*-same as 0015	Sulphur Canyon (0031)- from 12/01-07/31*-same as 0015	Sulphur Canyon (0031)- from 12/01-07/31*-same as 0015	Sulphur Canyon (0031)- 2,182 AUMs from 12/01-07/31
	Selby Ranch (0044)-season long 700 lbs mulch/ac for slopes 0 - 25% 800 lbs mulch/ac for slopes 26 - 50% 900 lbs mulch/ac for slopes 51 - 75% 1000 lbs mulch/ac for slopes 76 - 100%	Selby Ranch (0044)-season long-same as 0015	Selby Ranch (0044)-season long-same as 0015	Selby Ranch (0044)- 1,600 AUMs season long
	Temblor-Caliente (0053)-season long - same as 0015	Temblor-Caliente (0053)-season long - same as 0015	Temblor-Caliente (0053)-season long - same as 0015	Temblor-Caliente (0053)- 4,357 AUMs season long
	Chico Martinez (0063)-season 600 lbs mulch/ac for slopes 0 - 25% 700 lbs mulch/ac for slopes 26 - 50% 800 lbs mulch/ac for slopes 51 - 75% 900 lbs mulch/ac for slopes 76 - 100%	Chico Martinez (0063)-season long 400 lbs mulch/ac for slopes 0 - 25% 500 lbs mulch/ac for slopes 26 - 50% 600 lbs mulch/ac for slopes 51 - 75% 700 lbs mulch/ac for slopes 76 - 100%	Chico Martinez (0063)-season long-same as 0015	Chico Martinez (0063)- 1,578 AUMs season long
	Carrizo Ranch (0070)-season long-same as 0044	Carrizo Ranch (0070)-season long-same as 0015	Carrizo Ranch (0070)-season long-same as 0015	Carrizo Ranch (0070)- 584 AUMs season long
	Chimineas Ranch (0073)- from 11/01-06/30*-same as 0044	Chimineas Ranch (0073)- from 11/01-06/30*-same as 0015	Chimineas Ranch (0073)- from 11/01-06/30*-same as 0015	Chimineas Ranch (0073)- 2,715 AUMs from 11/01-06/31
	Maricopa Ranch (0096)- from 10/15-05/15*-same as 0015	Maricopa Ranch (0096)- from 10/15-05/15*-same as 0015	Maricopa Ranch (0096)- from 10/15-05/15*-same as 0015	Maricopa Ranch (0096)- 1,073 AUMs from 10/15-05/15
	- Allow 20-40% utilization of saltbush and key browse species.	- Allow 40-60% utilization of saltbush and key browse species.	- Allow 60-80% utilization of saltbush and key browse species.	
	M Cateogry (6,453 Total AUMs)	M Category (7,076 Total AUMs)	M Category (7,712 Total AUMs)	M Category Same as Alternative III.
	Naval Petro (0003)- 202 AUMs from 11/01-05/31	Naval Petro (0003)- 228 AUMs from 11/01-05/31	Naval Petro (0003)- 253 AUMs from 11/01-05/31	
	Catskin (0004)- 176 AUMs season long	Catskin (0004)- 198 AUMs season long	Catskin (0004)- 220 AUMs season long	
	Pleito (0008)- 1,226 AUMs season long	Pleito (0008)- 1,294 AUMs season long	Pleito (0008)- 1,362 AUMs season long	
	Oil Field (0016)- 293 AUMs season long	Oil Field (0016)- 330 AUMs season long	Oil Field (0016)- 367 AUMs season long	
	Buena Vista Creek (0019)- 87 AUMs from 01/15-06/30	Buena Vista Creek (0019)- 96 AUMs from 01/15-06/30	Buena Vista Creek (0019)- 107 AUMs from 01/15-06/30	
	Frazer Valley (0021)- 134 AUMs season long	Frazer Valley (0021)- 165 AUMs season long	Frazer Valley (0021)- 206 AUMs season long	
	Kettleman Hills (0028)- 789 AUMs season long	Kettleman Hills (0028)- 887 AUMs season long	Kettleman Hills (0028)- 986 AUMs season long	
	Naval Petroleum (0038)- 304 AUMs season long	Naval Petroleum (0038)- 342 AUMs season long	Naval Petroleum (0038)- 380 AUMs season long	
	Old Arroyo (0039)- 128 AUMs season long	Old Arroyo (0039)- 144 AUMs season long	Old Arroyo (0039)- 160 AUMs season long	
	Santiago Creek (0057)- 414 AUMs season long	Santiago Creek (0057)- 465 AUMs season long	Santiago Creek (0057)- 517 AUMs season long	
	Cedar Mountain (0064)- 139 AUMs from 03/01-06/20 and 10/15-02/29	Cedar Mountain (0064)- 139 AUMs from 03/01-06/20 and 10/15-02/29	Cedar Mountain (0064)- 139 AUMs from 03/01-06/20 and 10/15-02/29	
	Packwood-Franciscan (0065)- 355 AUMs season long	Packwood-Franciscan (0065)- 400 AUMs season long	Packwood-Franciscan (0065)- 444 AUMs season long	
	Bitterwater Valley (0072)- 747 AUMs from 12/01-05/31	Bitterwater Valley (0072)- 747 AUMs from 12/01-05/31	Bitterwater Valley (0072)- 747 AUMs from 12/01-05/31	
	--(0106)-116 AUMs season long	--(0106)- 131 AUMs season long	--(0106)-146 AUMs season long	
	Cienago Canyon (0107)- 319 AUMs from 09/01-05/30	Cienago Canyon (0107)- 359 AUMs from 09/01-05/30	Cienago Canyon (0107)- 399 AUMs from 09/01-05/30	
	Surprise Arroyo (0110)- 922 AUMs from 10/01-04/30	Surprise Arroyo (0110)- 1,037 AUMs from 10/01-04/30	Surprise Arroyo (0110)- 1,152 AUMs from 10/01-04/30	
	Devil's Gulch (0116)- 102 AUMs season long	Devil's Gulch (0116)- 114 AUMs season long	Devil's Gulch (0116)- 127 AUMs season long	
	C Category (684 Total AUMs)	C Category (723 Total AUMs)	C Category (764 Total AUMs)	C Category Same as Alternative III except:
	Oil Field (0002)- 59 AUMs from 01/01-07/01	Oil Field (0002)- 66 AUMs from 01/01-07/01	Oil Field (0002)- 73 AUMs from 01/01-09/30	
	Catskin (0011)- 80 AUMs from 06/01-09/30	Catskin (0011)- 80 AUMs from 06/01-09/30	Catskin (0011)- 80 AUMs from 06/01-09/30	
	--(0013)-82 AUMs season long	--(0013)-82 AUMs season long	--(0013)-82 AUMs season long	

[1/] See Appendix 3 for Selective Management Guidelines

*End dates may vary according to mulch levels or saltbush and browse utilization.

TABLE 2-5 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Livestock Grazing (cont.)	Elephant Back (0020)- 16 AUMs season long McKittrick Summit (0022)- 26 AUMs season long Bitterwater Valley (0027)- 12 AUMs from 09/01-05/31 Bitter Creek (0029)- 31 AUMs from 06/01-12/01 Klipstein Ranch (0030)- 96 AUMs season long-cattle 12/01-05/30-sheep Red Hill (0035)- 3 AUMs season long Derby Acres (0041)- 74 AUMs season long Willow Spring Canyon (0054)- 32 AUMs season long Curtis Mountain (0062)- 13 AUMs season long --(0069)- 80 AUMs from 03/01-05/01 McVan Oilfield (0097)- 27 AUMs season long Klipstein Ranch House (0114)- 24 AUMs from 03/01-09/30 Power Line Road (0115)- 29 AUMs from 01/01-06/31	Elephant Back (0020)- 16 AUMs season long McKittrick Summit (0022)- 32 AUMs season long Bitterwater Valley (0027)- 12 AUMs from 09/01-05/31 Bitter Creek (0029)- 31 AUMs from 06/01-12/01 Klipstein Ranch (0030)- 96 AUMs season long-cattle 12/01-05/30-sheep Red Hill (0035)- 3 AUMs season long Derby Acres (0041)- 83 AUMs season long Willow Spring Canyon (0054)- 32 AUMs season long Curtis Mountain (0062)- 13 AUMs season long --(0069)- 90 AUMs from 03/01-05/01 McVan Oilfield (0097)- 31 AUMs season long Klipstein Ranch House (0114)- 24 AUMs from 03/01-09/30 Power Line Road (0115)- 32 AUMs from 01/01-06/31	Elephant Back (0020)- 16 AUMs season long McKittrick Summit (0022)- 40 AUMs season long Bitterwater Valley (0027)- 12 AUMs from 09/01-05/31 Bitter Creek (0029)- 31 AUMs from 06/01-12/01 Klipstein Ranch (0030)- 96 AUMs season long-cattle 12/01-05/30-sheep Red Hill (0035)- 3 AUMs season long Derby Acres (0041)- 92 AUMs season long Willow Spring Canyon (0054)- 32 AUMs season long Curtis Mountain (0062)- 13 AUMs season long --(0069)- 100 AUMs from 03/01-05/01 McVan Oilfield (0097)- 34 AUMs season long Klipstein Ranch House (0114)- 24 AUMs from 03/01-09/30 Power Line Road (0115)- 36 AUMs from 01/01-06/31	- New grazing allotments handled on a case-by-case basis on application demand.
	- Allow 20-40% utilization of saltbush and key browse species.	- Allow 40-60% utilization of saltbush and key browse species.	- Allow 60-80% utilization of saltbush and key browse species.	
	- No additional grazing allotments will be allocated.	- New grazing allotments handled on a case-by-case basis on application demand.	- Offer all grazable land (15,160 acres) to set up new allotments.	
	Support Needs: - AMP for all I category allotments - Cattleguard in 0015 - Fence 5 miles in 0053 - Vegetation manipulation in 0031, 0044, 0070 (4,274 acres)	Support Needs: - AMP for all I category allotments - Cattleguard in 0015 - Fence 8 miles in 0053 - Vegetation manipulation in 0031, 0044, 0070 (5,583 acres) - Construct 1 water pipeline with trough in 0028, 0044, 0053 - Construct 2 water pipelines with troughs in 0073, 0096	Support Needs: - AMP for all I category allotments - Cattleguard in 0015 - Fence 10 miles in 0053 - Vegetation manipulation in 0031, 0044, 0070 (6,990 acres) - Construct 2 spring developments in 0053 - Construct 2 water pipelines with troughs in 0028, 0044, 0053, 0096 1 water pipeline with troughs in 0031, 0063, 0070 3 water pipelines with troughs in 0073	Support Needs: - Cattleguard in 0015 - Vegetation manipulation in 0031, 0044, 0070 (6,990 acres) - Construct 1 water pipeline with troughs in 0031, 0063, 0070 2 water pipelines with troughs in 0044, 0053 3 water pipelines with troughs in 0073
	Alternative IA: No authorized livestock grazing (29,029 AUMs cancelled).			
Minerals	OIL AND GAS Prohibit all oil and gas leasing and exploration in areas of critical/proposed critical Threatened and Endangered species (T and E) habitat, ACECs, Class I VRM areas, areas where known cultural sites occur, and special scientific or public interest (hereinafter Special Category Areas-see Map 2-1) by withdrawal or classification procedures. Allow exploration and pre/post-leasing in all other areas to encourage exploration and development in a manner which recognizes sound reclamation practices within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a Notice of Intent (NOI) will be allowed within Special Category Areas when surface impacts can be made negligible through development of stipulations to the NOI. All other areas will be managed to encourage exploration operations in a manner that recognizes sound reclamation practices, within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a NOI will be allowed within Special Category Areas in a manner that will not impact resources legally mandated for protection and rehabilitation is such that the impact of the exploration activity is negligible. All other areas will be managed to encourage exploration operations in a manner that recognizes sound reclamation practices, within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a NOI are allowed on all public land subject to the terms and stipulations of the NOI.
		2. Pre-lease - Leases will be allowed within Special Category Areas with a "no surface occupancy" (NSO) stipulation if: A)the application is for land within a known geologic structure (KGS) of a producing oil and gas field; or B)if the lease offer is within the target range of a	2. Pre-lease - Leasing will be allowed within Special Category Areas with special stipulations to minimize impacts to resources which are legally mandated to be protected. Those areas where development of stipulations cannot protect resource values that are legally mandated to be	2. Pre-lease - Leasing is not allowed in WSAs. All other public land is leased whenever feasible with special stipulations to minimize impacts to resources which are legally mandated to be protected and with standard lease conditions within the guidelines and constraints of pertinent

TABLE 2-5 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)		slant or directional drill originating within a KGS and the lease offer is outside the KGS. If conditions A or B cannot be met, no leasing will be allowed. All other public land will be leased within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders. 3. Post-lease activities will not occur on leases issued under NSO. Leases issued on other land will be managed in accordance with the terms of the lease. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	protected will be issued with a NSO stipulation. All other public land will be leased within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders. 3. a) Post-lease activities conducted within Special Category Areas will be managed in accordance with the special stipulations of the lease and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of post-lease activities within Special Category Areas will be conducted in a manner as to leave the area in a condition that is substantially unnoticable from original conditions and consistent with the purposes of the designation. Post-lease activities will not occur on leases with a NSO stipulation. b) Post-lease activities conducted on other areas will be managed in accordance with the terms of the lease. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	federal, state, and local laws, regulations, and orders. 3. Post-lease activities conducted on public land are managed in accordance with the terms of the lease. Rehabilitation is conducted on a case-by-case basis to restore disturbed areas to as near as practical to the original contour and vegetative stability.
	LOCATABLE MINERALS Withdraw or classify Special Category Areas to prohibit mineral location. Claims in Special Category Areas will be examined to determine if they are based on a valid discovery. Memoranda of Understanding (MOUs) between the state lead agencies under Surface Mining and Reclamation Act (SMARA) and BLM will be developed to provide a coordinated management role in surface management of mining activities. On all other public land manage surface activities on mineral locations within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	LOCATABLE MINERALS 1. Areas with unique resource values which are legally mandated to be protected will be withdrawn from mineral entry. All other public land will be free and open to exploration and entry. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities. 3. Areas designated as ACECs will be managed in accordance with stipulations developed for an approved Plan of Operations. Mining locations within areas withdrawn from mineral entry will be examined to determine if a valid discovery has been made. Management of surface disturbance from exploration activities or development on mining claim locations will be conducted within legal constraints and Standard Operating Procedures (SOP) to prevent undue and unnecessary degradation.	LOCATABLE MINERALS 1. All public land will remain free and open to mineral exploration, location, and development. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities. 3. Management of surface disturbance activities or development on mining claim locations will be conducted within legal constraints and SOP to prevent undue and unnecessary degradation.	LOCATABLE MINERALS 1. All public land not previously withdrawn from mineral location is open to mineral exploration, location, and development. Management of surface disturbing activities and development on mining claim locations will be conducted within legal constraints to prevent undue and unnecessary degradation. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities.
	OTHER LEASABLE AND SALEABLE MINERALS Withdraw or classify Special Category Areas to prohibit issuance of mineral exploration permits and mineral leasing. Prohibit development of mineral material sites within the above Special Category Areas. All other areas will be managed within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OTHER LEASABLE AND SALEABLE MINERALS 1. Geothermal and mineral leasing exploration permits will be authorized for exploration activities conducted on Special Category Areas if the permit is stipulated to cause negligible surface disturbance. When the stipulations to the permit cannot prevent surface disturbances, then the permit will be issued with a NSO, or the area may be withdrawn from mineral leasing. Mineral material exploration will not be allowed in Special Category Areas.	OTHER LEASABLE AND SALEABLE MINERALS 1. Geothermal and mineral leasing exploration permits will be authorized in Special Category Areas legally mandated to be protected if the permit is stipulated to allow surface disturbances which can be rehabilitated to a substantially unnoticable condition consistent with the purposes of the designation. If the permit cannot be issued to prevent unnoticeable disturbances after reclamation, then the permit will be issued with a NSO stipulation on those	OTHER LEASABLE AND SALEABLE MINERALS 1. All public land not previously withdrawn from mineral leasing is open to permitted exploration activities within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.

TABLE 2-5 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)		All other public land will be open to permitted exploration activities within the guidelines and constraints of pertinent federal, state and local laws, regulations, and orders.	Mineral material disposal exploration and operations will be allowed if it can be demonstrated that rehabilitation will be conducted in a manner to be substantially unnoticable. All other public land will remain open to permitted exploration activities within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	
		2. a) Pre-lease - Preference Right and Competitive Leases will be issued in Special Category Areas only if they can be stipulated with a NSO and only if the deposit is proven economically valuable or within a Known Geothermal Resource Area (KGRA) or Known Leasing Area (KLA). Only that land within Special Category Areas which can be developed by drilling or underground mining from a KGRA or KLA, and in the case of mineral leasing, have been proven economically valuable, will be leased with a NSO. Minerals on all other public land will be leased or disposed of within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. a) Pre-lease - Preference Right and Competitive Leases will be issued in Special Category Areas if stipulations to the lease allow development activities to be conducted that will minimize impacts to resources which are legally mandated to be protected. Those areas where development of stipulations to the lease will not protect resource values that are legally mandated to be protected will be issued with a NSO stipulation. Minerals on all other public land will be leased or disposed of within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. a) Leases are issued on all public land not previously segregated from mineral leasing according to the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.
		b) Mineral material disposals will be authorized in accordance with pertinent federal, state and local laws, regulations, and orders on Special Category Areas only if an identified deposit is not available within an economic limit of haul and is the result of emergency public works activities. Mineral material on other public land will be disposed of in accordance with pertinent federal state, and local laws, regulations, and orders.	b) Mineral material disposals will be authorized in accordance with pertinent federal, state, and local laws, regulations, and orders on Special Category Areas if no deposit is known within the market area, and disposal will be in the public interest. Mineral material on other public land will be disposed of in accordance with pertinent federal, state, and local laws, regulations, and orders.	b) Mineral materials on public land are disposed of in accordance with pertinent federal, state, and local laws, regulations, and orders. The site is rehabilitated when its useful life is over so that contouring blends with that of the surrounding topography and stable vegetative cover is established.
		3. a) Post-lease activities will be managed in accordance with the terms of the lease, stipulations to the plan of development or operation, and in conformance with pertinent federal, state, local laws, regulations, and orders. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	3. a) Post-lease activities will be managed in accordance with the terms of the lease, stipulations developed for plan of exploration or operation approvals, and in conformance with pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of Special Category Areas will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Rehabilitation on other public land will be conducted according to sound reclamation practices.	3. a) Post-lease activities will be managed in accordance with the stipulations developed for approved exploration or operating plans, and in conformance with pertinent federal, state, and local laws, regulations, and orders. Disturbed areas are rehabilitated after mining to conform with surrounding topography and stable vegetative cover is established.
		b) Mineral material disposal operations on Special Category Areas for emergency actions will be managed to minimize adverse impacts to the special resource values in accordance with pertinent federal, state, and local laws, regulations, and orders.	b) Mineral material disposal operations on Special Category Areas will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation will be conducted	b) Mineral materials disposal operations on public land are managed in accordance with the term of the contract/permit and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined areas blends with that of the

TABLE 2-5 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)		Rehabilitation will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Mineral material disposal operations on other public land will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined operation areas will be conducted according to sound reclamation practices.	in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Mineral material disposal operations on other public land will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined operation areas will be conducted according to sound reclamation practices.	surrounding topography and stable vegetative cover is established.
	Support Needs: - Geology, Energy, and Minerals (GEM) assessments - Validity examinations of mineral locations within Special Category Areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - GEM assessments - Inventory of mineral material locations within Special Category Areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - GEM assessments - Inventory of mineral material disposal areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - MOUs with county(s) (per SMARA)
Recreation Use	Manage to maximize environmental protection while still allowing minimal recreation use by: A) altering public land near Paso Creek to discourage shooting; B) allow limited ORV use (existing roads, ways, and trails only-720 miles); C) develop walk-in access to public land within Caliente Range with steps over fence at easement entrance.	Allow limited recreation use within environmental constraints by: A) altering public land near Paso Creek to discourage shooting and allowing development of alternative site; B) allow limited ORV use (existing roads, ways and trails only-720 miles); C) develop walk-in access to public land within Caliente Range with gate and cattleguard at easement entrance.	Manage to maximize recreation use under minimal environmental constraints by: A) leaving public land near Paso Creek accessible and and signing only; B) designate open to ORV use (178,000 acres); C) develop road access to public land within Caliente Range. Support Needs: -Obtain easement to southeast portion of public land in Caliente Range.	Allow recreation use with minimal environmental constraints: A) public land near Paso Creek accessible to shooting; B) MA undesignated ORV use; C) access to Caliente Range unmarked.
Special Land and Resource Use Needs	Designate Elkhorn Plain and Goose Lake as ACECs for maximum protection of T and E species and cultural resources respectively; designate Reef Ridge and San Andreas Fault Scarp as Research Natural Areas to protect valuable scientific resources (10,760 acres). Nominate San Andreas Fault Scarp as a National Natural Landmark (1,120 acres). No construction will be allowed within T and E critical/proposed critical habitat or where known cultural sites occur (11,000 acres). No pesticide or herbicide (e.g., malathion) spraying will be allowed within T and E critical/proposed critical habitat (8,000 acres), within ½ mile of wildlife guzzlers (16,570 acres), and from April through June in upland game habitat (80,000 acres). Continue management of National Cooperative Land and Wildlife Management Areas with California Department of Fish and Game (114,805 acres).	Designate Elkhorn Plain and Goose Lake as ACECs for maximum protection of T and E species cultural resources respectively; designate Reef Ridge and San Andreas Fault Scarp as Research Natural Areas to protect valuable scientific resources (10,760 acres). Nominate San Andreas Fault Scarp as a National Natural Landmark (1,120 acres). Allow construction only where impacts to T and E critical/proposed critical habitat and known cultural sites can be avoided. Pesticide or herbicide spraying (e.g., malathion) will only be allowed after a "no jeopardy" decision by U.S. Fish and Wildlife Service for those parcels within T and E critical/proposed critical habitat. Spraying will not be allowed within ½ mile of wildlife guzzlers (16,570 acres) and from April through June in upland game habitat (80,000 acres). Continue management of National Cooperative Land and Wildlife Management Areas with California Department of Fish and Game (114,805 acres).	Allow construction only where impacts to T and E critical/proposed critical habitat can be avoided and impacts to cultural sites can be mitigated. Pesticides and herbicides - Same as Alternative II. Continue management of National Cooperative Land and Wildlife Management Areas with California Department of Fish and Game (114,805 acres).	Construction - Same as Alt. III. A statewide MOU between the Bureau and California Department of Food and Agriculture regarding pesticide spraying has been approved. This MOU requires that monitoring of affects takes place. Supplemental MOUs will be developed at the local level and will meet the requirements of the Endangered Species Act. Continue management of National cooperative Land and Wildlife Areas with California Department of Fish and Game (114,805 acres).

TABLE 2-5 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Special Land and Resource Use Needs (Cont.)	Support Needs: - Modified fire suppression plan for Caliente Range (51,600 acres)	Support Needs: - Same as Alternative I	Support Needs: - Same as Alternative I	
Water Quality and Watershed Protection	Determine potential impacts from proposed land uses on watershed condition before authorizing use. Permit land uses which will allow watershed condition to be maintained. Maintain stable slopes and prevent erosion which causes on-site damage to vegetation, soil fertility and permeability, and downstream damage from sedimentation and poorer water quality. No construction will be permitted on soils with high erosion hazard ratings and where slopes exceed 30% (95,570 acres). Protect all existing water sources. Support Needs: - BMP - Fencing wherever needed to protect springs	Same as Alternative I except: A) No construction activities where slopes exceed 50% (48,210 acres). B) Protect all primary water sources and allow use of secondary sources.	Same as Alternative I except: A) No construction activities where slopes exceed 70% (15,890 acres).	All new road construction should have culverts installed where required, appropriate water spreading devices, and meet specification of average side slopes of less than 30% and average grade of 10% or less.

TABLE 2-6: ALTERNATIVES FOR MANAGEMENT AREA 6: VENTURA

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Land Tenure Adjustment	No disposal of public land.	Approximately 180 acres potentially suitable for land tenure adjustment.	Approximately 1,820 acres potentially suitable for land tenure adjustment.	Same as Alternative I.
Livestock Grazing[1]	C Category -- (0055)- 23 AUMs season long Alternative IA: No authorized livestock grazing (23 AUMs cancelled).	Same as Alternative I.	Same as Alternative I.	Same as Alternative I.
Minerals	OIL AND GAS Prohibit all oil and gas leasing and exploration in areas of critical/proposed critical Threatened and Endangered species (T and E) habitat, ACECs, Class I VRM areas, areas where known cultural sites occur, and special scientific or public interest (hereinafter Special Category Areas-see Map 2-1) by withdrawal or classification procedures. Allow exploration and pre/post-leasing in all other areas to encourage exploration and development in a manner which recognizes sound reclamation practices within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a Notice of Intent (NOI) will be allowed within Special Category Areas when surface impacts can be made negligible through development of stipulations to the NOI. All other areas will be managed to encourage exploration operations in a manner that recognizes sound reclamation practices, within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a NOI will be allowed within Special Category Areas in a manner that will not impact resources legally mandated for protection and rehabilitation is such that the impact of the exploration activity is negligible. All other areas will be managed to encourage exploration operations in a manner that recognizes sound reclamation practices, within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OIL AND GAS 1. Exploration activities conducted under a NOI are allowed on all public land subject to the terms and stipulations of the NOI.
		2. Pre-lease - Leases will be allowed within Special Category Areas with a "no surface occupancy" (NSO) stipulation if: A)the application is for land within a known geologic structure (KGS) of a producing oil and gas field; or B)if the lease offer is within the target range of a slant or directional drill originating within a KGS and the lease offer is outside the KGS. If conditions A or B cannot be met, no leasing will be allowed. All other public land will be leased within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. Pre-lease - Leasing will be allowed within Special Category Areas with special stipulations to minimize impacts to resources which are legally mandated to be protected. Those areas where development of stipulations cannot protect resource values that are legally mandated to be protected will be issued with a NSO stipulation. All other public land will be leased within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	2. Pre-lease - Leasing is not allowed in WSAs. All other public land is leased whenever feasible with special stipulations to minimize impacts to resources which are legally mandated to be protected and with standard lease conditions within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.
		3. Post-lease activities will not occur on leases issued under NSO. Leases issued on other land will be managed in accordance with the terms of the lease. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	3. a) Post-lease activities conducted within Special Category Areas will be managed in accordance with the special stipulations of the lease and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of post-lease activities within Special Category Areas will be conducted in a manner as to leave the area in a condition that is substantially unnoticeable from original conditions and consistent with the purposes of the designation. Post-lease activities will not occur on leases with a NSO stipulation. b) Post-lease activities conducted on other areas will be managed in accordance with the terms of the lease. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices. accordance with the special	3. Post-lease activities conducted on public land are managed in accordance with the terms of the on a case-by-case basis to restore disturbed areas to as near as practical to the original contour and vegetative stability.

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[1] See Appendix 3 for Selective Management Guidelines

TABLE 2-6 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 6: VENTURA

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)	LOCATABLE MINERALS Withdraw or classify Special Category Areas to prohibit mineral location. Claims in Special Category Areas will be examined to determine if they are based on a valid discovery. Memoranda of Understanding (MOUs) between the state lead agencies under Surface Mining and Reclamation Act (SMARA) and BLM will be developed to provide a coordinated management role in surface management of mining activities. On all other public land manage surface activities on mineral locations within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	LOCATABLE MINERALS 1. Areas with unique resource values which are legally mandated to be protected will be withdrawn from mineral entry. All other public land will be free and open to exploration and entry. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities. 3. Areas designated as ACECs will be managed in accordance with stipulations developed for an approved Plan of Operations. Mining locations within areas withdrawn from mineral entry will be examined to determine if a valid discovery has been made. Management of surface disturbance from exploration activities or development on mining claim locations will be conducted within legal constraints and Standard Operating Procedures (SOP) to prevent undue and unnecessary degradation.	LOCATABLE MINERALS 1. All public land will remain free and open to mineral exploration, location, and development. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities. 3. Management of surface disturbance activities or development on mining claim locations will be conducted within legal constraints and SOP to prevent undue and unnecessary degradation.	LOCATABLE MINERALS 1. All public land not previously withdrawn from mineral location is open to mineral exploration, location, and development. Management of surface disturbing activities and development on mining claim locations will be conducted within legal constraints to prevent undue and unnecessary degradation. 2. MOUs between the state lead agencies under SMARA and BLM will be developed to provide a coordinated management role in surface management of mining activities.
	OTHER LEASABLE AND SALEABLE MINERALS Withdraw or classify Special Category Areas to prohibit issuance of mineral exploration permits and mineral leasing. Prohibit development of mineral material sites within the above Special Category Areas. All other areas will be managed within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OTHER LEASABLE AND SALEABLE MINERALS 1. Geothermal and mineral leasing exploration permits will be authorized for exploration activities conducted on Special Category Areas if the permit is stipulated to cause negligible surface disturbance. When the stipulations to the permit cannot prevent surface disturbances, then the permit will be issued with a NSO, or the area may be withdrawn from mineral leasing. Mineral material exploration will will not be allowed in Special Category Areas. All other public land will be open to permitted exploration activities within the guidelines and constraints of pertinent federal, state and local laws, regulations, and orders.	OTHER LEASABLE AND SALEABLE MINERALS 1. Geothermal and mineral leasing exploration permits will be authorized in Special Category Areas legally mandated to be protected if the permit is stipulated to allow surface disturbances which can be rehabilitated to a substantially unnoticable condition consistent with the purposes of the designation. If the permit cannot be issued to prevent unnoticable disturbances after reclamation, then the permit will be issued with a NSO stipulation on those Special Category Areas. Mineral material disposal exploration and operations will be allowed if it can be demonstrated that rehabilitation will be conducted in a manner to be substantially unnoticable. All other public land will remain open to permitted exploration activities within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	OTHER LEASABLE AND SALEABLE MINERALS 1. All public land not previously withdrawn from mineral leasing is open to permitted exploration activities within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.
		2. a) Pre-lease - Preference Right and Competitive Leases will be issued in Special Category Areas only if they can be stipulated with a NSO and only if the deposit is proven economically valuable or within a Known Geothermal Resource Area (KGRA) or Known Leasing Area (KLA). Only that land within Special Category Areas which can be developed by drilling or underground mining from a KGRA or KLA, and in the case of mineral leasing, have been proven economically valuable, will be leased with a NSO.	2. a) Pre-lease - Preference Right and Competitive Leases will be issued in Special Category Areas if stipulations to the lease allow development activities to be conducted that will minimize impacts to resources which are legally mandated to be protected. Those areas where development of stipulations to the lease will not protect resource values that are legally mandated to be protected will be issued with a NSO stipulation.	2. a) Leases are issued on all public land not previously segregated from mineral leasing according to the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.

TABLE 2-6 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 6: VENTURA

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Minerals (cont.)		Minerals on all other public land will be leased or disposed of within the guidelines and constraints of pertinent federal, state, and local laws, regulations, and orders.	Minerals on all other public land will be leased or disposed of within the guidelines and constraints of pertinent federal, state, and local laws,regulations, and orders.	
		b) Mineral material disposals will be authorized in accordance with pertinent federal, state and local laws, regulations, and orders on Special Category Areas only if an identified deposit is not available within an economic limit of haul and is the result of emergency public works activities. Mineral material on other public land will be disposed of in accordance with pertinent federal state, and local laws, regulations, and orders.	b) Mineral material disposals will be authorized in accordance with pertinent federal, state, and local laws, regulations, and orders on Special Category Areas if no deposit is known within the market area, and disposal will be in the public interest. Mineral material on other public land will be disposed of in accordance with pertinent federal, state, and local laws, regulations, and orders.	b) Mineral materials on public land are disposed of in accordance with pertinent federal, state, and local laws, regulations, and orders. The site is rehabilitated when its useful life is over so that contouring blends with that of the surrounding topography and stable vegetative cover is established.
		3. a) Post-lease activities will be managed in accordance with the terms of the lease, stipulations to the plan of development or operation, and in conformance with pertinent federal, state, local laws, regulations, and orders. Rehabilitation of post-lease activities will be conducted according to sound reclamation practices.	3. a) Post-lease activities will be managed in accordance with the terms of the lease, stipulations developed for plan of exploration or operation approvals, and in conformance with pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of Special Category Areas will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Rehabilitation on other public land will be conducted according to sound reclamation practices.	3. a) Post-lease activities will be managed in accordance with the stipulations developed for approved exploration or operating plans, and in conformance with pertinent federal, state, and local laws, regulations, and orders. Disturbed areas are rehabilitated after mining to conform with surrounding topography and is established stable vegetative cover.
		b) Mineral material disposal operations on Special Category Areas for emergency actions will be managed to minimize adverse impacts to the special resource values in accordance with pertinent federal, state, and local laws, regulations, and orders. Rehabilitation will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Mineral material disposal operations on other public land will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined operation areas will be conducted according to sound reclamation practices.	b) Mineral material disposal operations on Special Category Areas will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation will be conducted in a manner to reclaim the surface to a condition as near as practical to that which existed prior to operations. Mineral material disposal operations on other public land will be managed in accordance with the terms of the permit/contract and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined operation areas will be conducted according to sound reclamation practices.	b) Mineral materials disposal operations on public land are managed in accordance with the term of the contract/permit and pertinent federal, state, and local laws, regulations, and orders. Rehabilitation of mined areas blends with that of the surrounding topography and stable vegetative cover is established.
	Support Needs: - Geology, Energy, and Minerals (GEM) assessments - Validity examinations of mineral locations within Special Category Areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA - VRM inventory	Support Needs: - GEM assessments - Inventory of mineral material locations within Special Category Areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA - VRM inventory	Support Needs: - GEM assessments - Inventory of mineral material disposal areas - Development of reclamation guidelines and standards - MOUs with county(s) (per SMARA) - VRM inventory	Support Needs: - MOUs with county(s) (per SMARA)
Recreation Use	Designate MA limited to ORV use (existing roads, ways, and trails only-10 miles).	Designate MA limited to ORV use (existing roads, ways, and trails only - 10 miles).	Designate MA open to ORV use (2,550 acres).	MA undesignated ORV use.

TABLE 2-6 (Cont.): ALTERNATIVES FOR MANAGEMENT AREA 6: VENTURA

Issue	Alternative I: Emphasize Protection Alternative IA: No Grazing	Alternative II: Combined Emphasis	Alternative III: Emphasize Production	Alternative IV: Present Management
Water Quality and Watershed Protection	Determine potential impacts from proposed land uses on watershed condition before authorizing use. Permit land uses which allow watershed condition to be maintained. Maintain stable slopes and prevent erosion which causes on-site damage to vegetation, soil fertility and permeability, and downstream damage from sedimentation and poorer water quality. No construction will be permitted on soils with high erosion hazard ratings and where slopes exceed 30% (2,320 acres). Support Needs: - BMPs - Fencing where necessary to protect springs	Same as Alt. I except: A) No construction activities where slopes exceed 50% (2,100 acres). B) Protect all primary water sources and allow use of secondary sources.	Same as Alt. I except: A) No construction activities where slopes exceed 70% (1,525 acres).	Potential impacts from proposed use are evaluated on a case-by-case basis. Impacts are mitigated.

RATIONALE FOR THE PROPOSED ACTION

The Proposed Action represents a commitment to the protection of sensitive resources while allowing for multiple resource utilization and production. This proposal was developed as a result of: public input and needs; other federal, state, county, and local land use plans; the planning goals as stated in Chapter 1; and necessary consistency with current Bureau policy and guidelines.

Special Designation Areas

The Proposed Action would establish four Areas of Critical Environmental Concern (ACEC- 11,660 acres), two Research Natural Areas (2,120 acres), and one area to be nominated into the National Natural Landmark system (1,120 acres). A specific management plan for each ACEC and Research Natural Area will be developed following final approval of each individual designation.

Elkhorn Plain ACEC

- Designate 8,600 acres
- Protect the habitat of 3 federally listed endangered wildlife species and 2 state listed wildlife species

Goose Lake ACEC

- Designate 40 acres
- Protect cultural resources (National Register potential)
- Protect habitat of shorebirds and raptors
- Protect one of the few remaining alkali sink habitats

Point Sal ACEC

- Designate approximately 50 acres
- Protect coastal scenic values, cultural sites (National Register potential), RT and E species, and marine mammals
- Preserve unique geologic formation of international significance (ophiolite sequence)

Reef Ridge Research Natural Area

- Designate 1,000 acres
- Protect important, well known type localities of significant geologic rock units (paleontology) of West Coast sedimentary geology

San Andreas Fault Scarp Research Natural Area (National Natural Landmark)

- Designate 1,120 acres
- Preserve and protect the topographic expression of the San Andreas fault which is extremely important to regional and statewide earthquake hazard studies and information studies including measurements and observation of strike-slip and dip-slip movement

Soda Lake ACEC

- **Designate 2,970 acres**
- **Protect the natural alkaline marsh habitat for 3 federally listed endangered wildlife species and 2 state listed rare and endangered species in addition to many species of raptors and shorebirds (to include the sandhill crane)**

STANDARD OPERATING PROCEDURES

Animal Damage Control

Animal damage control (ADC) will be restricted to those grazing allotments where damage is occurring. ADC plans will be reviewed annually for applicability. No planning areawide ADC plans will be approved since past history does not identify widespread need for ADC.

Apiary

The apiary program will be conducted in accordance with the criteria and stipulations established in the programmatic Environmental Assessment of May 23, 1973, Appendix A: General Information for the Bakersfield District Apiary Program, wherever feasible. The Bureau will receive fair market value for all apiary sites permitted.

Chemical Pest Control

All chemical pest control within the planning area will adher to BLM Manual 9222.14H, Environmental Precautions and Appendix 1, Department of the Interior Guidelines for Use of Pesticides.

Cultural Resources

Before construction of range development and vegetation manipulation, cultural resources will be inventoried and evaluated, and attempts to avoid adverse effects will be made. Where this is not possible, consultation will be made with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation to develop acceptable mitigative strategies in accordance with the Programmatic Memorandum of Agreement (dated January 14, 1980) between the Bureau and the Advisory Council. In addition, the views of responsible spokesmen of the local Native American community will be solicited. Conflicts will be resolved in accordance with 36 CFR 800 and in accordance with the Memorandum of Agreement signed by the California Native American Heritage Commission, the California SHPO, and the BLM.

Fire

A. Prescribed burns will be conducted to provide mosaic patterns of vegetation to protect soil, watershed, and wildlife habitat. Buffer zones will be left in riparian areas wherever possible.

B. Fire suppression within the planning area will be conducted according to the Bakersfield District Fire Plan, Bureau of Land Management, which is updated annually.

C. All proposed burn plans to include California Department of Forestry initiated chaparral management plans will be environmentally reviewed on a case-by-case basis.

D. If wildfires occur in areas of low resource values, do not threaten personal property, and environmental conditions are similar to those associated with prescribed burns planned for similar areas, then aggressive, full suppression activities may not be undertaken.

Fuelwood

It is the general intent to refrain from disposal of fuelwood. There are small areas where trees may appear to be abundant enough to support limited fuelwood disposal, but limited public access, the declining of native hardwood vegetation types, and the uneconomical management that would result from such an activity, eliminates fuelwood disposal from further consideration.

Hazardous Waste

Management of the planning area will follow all procedures outlined in the Hazardous Materials Management Program Paper which includes all pertinent federal, state, and local laws, regulations, and orders (BLM - Draft 01/16/84). All new mandates will be incorporated as they become final.

Livestock Grazing

A. Encourage livestock industry participation in grazing management by developing cooperative management agreements on leases which meet the criteria of: 1) an operators good stewardship; 2) joint agreement on objectives for the allotment; 3) having the ability to allow flexibility; 4) recognition by the operators that they have no authority to manage or exclude other uses.

B. Land treatment areas and seedings will be rested until seedlings are sufficiently established to resist pull-up from grazing.

C. Livestock watering developments will be constructed for and safe for wildlife use, as identified.

D. Wherever feasible, livestock watering and handling facilities will be located a minimum of 1,200 feet from riparian zones, water sources susceptible to trampling, meadows and sensitive species habitat, in order to minimize impacts to other resources.

E. Removal of vegetation and surface disturbances will be minimized when developing rangeland improvements, and surface rehabilitation measures will be applied.

F. Water sources that are susceptible to livestock trampling will be protected.

Minerals

Management of mineral resources on public land open to mineral entry, leasing, and disposal (mineral material sales) will be conducted in keeping with the Bureau's Mineral Resources Policy (Appendix 1).

The criteria outlined below governs the management of the mineral resources on public land within the planning area. These criteria are broken out for each mineral resource operant (i.e., exploration, pre, and post-lease/plan approval/permit) for each group of mineral disposal types (i.e., oil and gas, locatable, and other leasable and saleable minerals) as addressed in the alternatives.

General

The National Environmental Policy Act places a requirement on each management decision regarding mineral development or disposal, to address each impact at that decision level using the criteria developed through Title 40 CFR guidelines. In addition, other federal, state, and local laws, regulations, and orders govern our responsibilities for decision making on mineral related actions as well as placing a responsibility on the mineral operators to comply with these laws, regulations, and orders.

A. Oil and Gas

1. Exploration. Exploration activities are authorized under the Mineral Leasing Act of 1920 (MLA; 41 Stat. 437) and the regulations at 43 CFR 3040. Oil and gas exploration activities are allowed on federal surface managed by the Bureau after notification on an approved form by the operator. The Bureau does not permit or approve operations, but will assure that operations are conducted to avoid or minimize adverse impacts to other resource values.

2. Pre-lease. The issuance of an oil and gas lease is authorized under the MLA. Guidance and requirements are outlined in the regulations at 43 CFR 3100. All oil and gas lease offers will be evaluated for impacts that may be caused from issuance of the lease and the attendant development and production activities associated with the lease, prior to issuance. Stipulations to ensure orderly and sound development of the mineral resource and reclamation practices will be made a condition of approval of an oil and gas lease.

3. Post-Lease. All post lease construction and production activities are authorized under the MLA, the regulations at 43 CFR 3100, and the terms and conditions of the lease. Each discrete activity is submitted on an approved form for approval by the Bureau. At the time of application or notice, each discrete activity will be analyzed for its impact on other resource values as a requirement of NEPA. In addition to the terms and conditions placed on post-lease activities as a condition of approval, all activities must be conducted in compliance with Part 3100 of the regulations and the attendant oil and gas orders and notice to lessees (NTLs).

B. Locatable Minerals

All actions (exploration, location, development, and patenting) regarding the locatable mineral resources on the public land are authorized under the General Mining Law of 1872 (GML; 17 Stat 91). Other laws allow for exploration, location, development, and patenting within areas of special designations or ownership, such as: land patented under the Stockraising Homestead Act, 39 Stat. 864; development of locatable and leasable minerals of the same tract, PL 585 (68 Stat 708); location of uranium claims on land classified or known to be valuable for coal, 69 Stat. 679; location and patent of non-mineral land associated with a placer mining claim, 74 Stat 7; and location and development of locatable minerals in land withdrawn for powersite purposes, PL 359 (69 Stat 681). In addition, the regulations at 43 CFR 3700 and 3800 govern the operation of activities.

Exploration, development, and production activities conducted on mining claims will be evaluated for known or inferred impacts to other resource values in order to determine whether they will cause undue or unnecessary degradation to the public land (43 CFR 3809). Activities conducted under a notice (3809) will be evaluated to determine if completed activities are in compliance with the required reclamation standards as defined in the regulations. Activities conducted under a plan of operations (3809/3802) will be analyzed by the environmental process prior to approval to determine if the activities as proposed will cause undue or unnecessary degradation to the public land, and the reclamation as proposed follows standard practices to ensure complete rehabilitation of the disturbed area to a condition as near as practical to what existed prior to approved activities.

For activities on mining claims in which mineral activities will substantially impact other resource values worthy of protection, for mining claim locations in areas of high public interest for other resource values, or in areas where minerals not subject to location are being extracted and removed under the premise of the GML, a determination as to the right of the mineral claimant to locate his claim based on a discovery of a valuable mineral deposit will be investigated.

Mining claims will be investigated in order to determine the validity of the discovery of a valuable mineral deposit on application for mineral patent.

C. Other Leasable and Saleable Minerals

1. Exploration for solid leasable minerals is authorized pursuant to the MLA and by the regulations at 43 CFR 3500; for geothermal resources pursuant to the Geothermal Steam Act of 1970 (GSA; 84 Stat. 1566) and the regulations at 43 CFR 3200; and mineral material disposals (sales) pursuant to the Materials Act of 1947 (MSA; 61 Stat 681) and the regulations at 43 CFR 3600. All activities under this section require approved permits prior to conduct of exploration operations. These permits will be reviewed through the environmental process to determine impacts from exploration activities and develop stipulations to approval of the permit to ensure that there will be no or minimal adverse impacts to other resource values.

2. Pre-leasing. Leasing of geothermal resources is authorized under the GSA and Part 3200 of the regulations; issuance of perference right leases and competitive mineral (solid) leases is authorized under the MLA and Part 3500; and disposal of mineral materials by sales contract or free use permit (FUP) is authorized under the MSA and Part 3600 of the regulations. Prior to approval of any lease or permit in the planning area, an environmental analysis of the proposed lease or permit issuance will be made in order to determine the impacts to other resource values.

Areas of special resource values or high public interest for other resource values may be determined unsuitable for leasing or permitting. These areas will be assessed for their impacts to the mineral resource, and alternatives to no leasing will be addressed in the environmental analysis of lease or permit issuance. Stipulations on post-lease activities and/or standards of reclamation will be made a condition for approval of the lease or permit.

3. Post-Lease. All post-lease construction, mining, development, and/or production activities are authorized under the MLA, the regulations at 43 CFR 23, 3200 or 3500, the terms and conditions of the lease, and/or Geothermal Resource Orders. At the development stage for mineral material activities, authorization is pursuant to the terms of the contract or Permit. All leasable mineral (geothermal and solid) development requires an approved plan of development. Prior to approval of the plan, each discrete activity proposed will be analyzed for its impact on other resource values as a requirement of NEPA. In addition to the terms and conditions placed on post-lease activities as a condition of approval, all activities must be conducted in compliance with Part 23, 3200, or 3500 of the regulations and attendant Notices and Orders.

Oil and Gas Leases - Extraneous Roads

All oil and gas leases on public land within the planning area will be managed to eliminate extraneous roads, wherever feasible, following review of necessity by leasehold operators.

Noxious Weeds

Plants designated as noxious weeds will be managed according to the Federal Noxious Weed Act of 1974.

The California Department of Food and Agriculture is responsible for the designation and eradication of noxious weeds for the state. Procedures developed by the California Department of Food and Agriculture and the Bureau of Land Management are listed in the Memorandum of Understanding between the two agencies.

Paleontology

A. Paleontological resources will be preserved and protected in accordance with 36 CFR 2, Section 2.1 (iii), 36 CFR 2, Section 2.5 (a) and (b) and 43 CFR 8000.0-6 (c)(2).

B. Paleontological resources are protected under the Antiquities Act of 1906 and collecting, in general, has been identified as a resource use within the planning area; however, no information on significant sites has been collected. Therefore, all "type" locations and significant vertebrate fossil sites will be managed for protection when identified.

Realty

A. Consistency with County General Plans and zoning will be maintained with Department regulations and Bureau policy for all realty actions.

B. Federal, state, county, and local agencies desiring access to their land across public land will be encouraged to sign a cooperative agreement with BLM for management of the access, rather than applying for a right-of-way.

C. All prominent hilltops in the planning area are considered to have potential for future communication sites.

D. Construction of utility sites, rights-of-way, and related facilities may be restricted to existing utility corridors, if feasible. Consideration of utility sites outside the established corridor will evaluated on a case-by-case basis within the constraints of the plan.

E. Applications for wind energy facilities will be processed either competitively or noncompetitively. Fees will be based on the fair market value of the site(s).

F. The Resource Management Plan will replace the multiple-use classification (C&MU) covering public land in the planning area. A full range of land uses will be considered/evaluated on a case-by-case basis within the constraints of the plan.

G. Land will be acquired or exchanged in accordance with the Federal Land Policy and Management Act (FLPMA) and other applicable Federal laws and regulations to assure more efficient management of the public land, and to reduce conflicts with other public and private landowners and to provide more consistency and logic in land use patterns within the Coast/Valley Planning Area. Public land identified in the future for possible sale or exchange will be evaluated on a case-by-case basis. If it meets specific sale or exchange regulation requirements, it may be determined suitable for sale or exchange.

H. Any public land within the planning area can be disposed of if it meets the disposal criteria of FLPMA, other federal laws and regulations, and Bureau policy; and is in conformance with the management objectives of the plan. Disposal proposals not in conformance would be subject to the amendment process. The Bureau will receive at least fair market value (as determined by Bureau appraisal) for any land disposal to the private sector. Minerals will be reserved in any disposal. Reserved minerals may be conveyed under Sec. 209 of FLPMA only when strict criteria have been met regarding mineral potential.

I. Leasing of land for agriculture or other purposes will be considered on a case-by-case basis, and any lease granted will include rental fees based on the fair market value of the land (and crops). The following criteria will be used in determining whether available land is suitable or unsuitable for agricultural development:

a. any 40-acre parcel that contains a majority (75-100 percent) of Class VI or worse soils (Land-Capability Classification System; Klingebiel et al., 1961) would be classified unsuitable;

b. any parcel containing cultural or historic values would be classified unsuitable;

c. any parcel which is sensitive, rare, threatened, or endangered species habitat would be classified as unsuitable;

d. any parcel identified for community needs such as landfills, gravel pits, etc. would be classified unsuitable;

e. any parcel determined valuable for wildlife would be classified unsuitable;

f. no parcel will be disposed of if such disposition will significantly constrain proper administration of adjacent public land or reserved minerals.

Recreation

Camping is limited to 14 days per month for all parcels.

Soil, Air and Water

A. Fences will not be located on sites that are highly susceptible to soil erosion. All surface disturbing activities will be planned and designed to minimize erosion whether by wind or water.

B. All resource management activities will comply with the Clean Air Act (as amended). Public land in the planning area will be managed under Class II or Class III designation. Land under wilderness review will be managed under Class II, as set forth in the IMP. Consistency with State Air Pollution laws will be maintained.

C. Activities will comply with the Federal Water Pollution Control Act of 1972, as amended by the Clean Water Act of 1977. Activity plans will include Best Management Practices (BMPs) to reduce water quality pollution pursuant to BLM's 208 Water Quality Management Report. As a part of the monitoring program, these BMPs will be evaluated for their adequacy in reducing water pollution.

D. All water projects or projects which could influence the beneficial use of water will conform to BLM Best Management Practices Guidelines.

E. The planning area will be managed to prevent adverse impacts to fisheries and to protect the aquatic flora and fauna on public land.

Unauthorized Use

A. Unauthorized uses of the public land which:
- were occurring before October 21, 1976;
- require a Bureau right-of-way authorization;
- continue past July 31, 1984;
- and for which the Bureau has not received a right-of-way application before July 31, 1984;

will be considered to be in trespass. It is recommended to the user that they file a right-of-way application. Upon authorization, back rental will be collected from the user, as well as yearly rental fees.

B. Support and assistance with local, state, and other federal law enforcement agencies in the eradication of cannabis on public land will be accomplished as per Instruction Memorandum No. CA-83-375.

C. Special emphasis will be placed on resolution of unauthorized uses (trespass) of public land. Increased coordination will be made with local, state, and other federal law enforcement agencies.

Visual

A visual resource contrast rating will be conducted for all construction sites (BLM Visual Resource Policy Manual 8400). Projects may be modified to protect visual resource quality.

Wilderness

Wilderness Study Areas will be regulated so as not to impair the suitability of these areas for preservation as wilderness. Management of these areas will be in accordance with the Interim Management Policy and Guidelines for Lands Under Wilderness Review, (IMP-December 12, 1979).

Wildlife

A. Proposed surface disturbing activities adjacent to or within the habitat of any federally or state listed rare, threatened, or endangered species will be analyzed to determine if the proposal may affect the species. If it is determined that the proposal may adversely affect a federally listed species, formal consultation procedures will be initiated with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act (ESA). Similar consideration will be afforded federal candidate species except that coordination with the U.S. Fish and Wildlife Service will be in the form of a conference. If a state listed species may be affected by the proposal, coordination procedures will be initiated with the California Department of Fish and Game (BLM Manual 6840.2). It is the Bureau's policy to protect, conserve, and manage for federally listed, state listed, and candidate species.

B. Any development on ridgelines within known use areas of the California condor may be restricted (eg., seasonal, location, etc.). Determination of restriction(s) will be handled on a case-by-case basis.

C. Ten to twenty acres around all new guzzlers will be fenced to provide maximum vegetation cover wherever feasible. Acres fenced will depend on topography, critical water needs, and the need of vegetation in the area for groundcover and feed. Existing guzzlers may be fenced as needed.

D. Three to five acre habitat enclosures will be constructed near livestock watering troughs. The enclosures will be constructed in a elongated or rectangular shape as to provide a corridor to and from the water source for protective cover.

E. Spring sources will be fenced to prevent trampling of the immediate areas. Livestock and big game water facilities will be provided outside the enclosure where the water source is important to game distribution in the area or where necessary to maintain adequate livestock distribution within an allotment.

F. Construction of fences in wildlife use areas will meet BLM specifications to permit the movement of identified wildlife.

G. All raptor nest trees and necessary habitat will be retained in fuelwood and timber management areas.

H. During construction of powerlines/power poles, wires will be strung in the configurations recommended by Raptor Research Report No. 4 by Olendorff, Miller, and Lehman, 1981.

CHAPTER 3

AFFECTED ENVIRONMENT

Chapter 3

AFFECTED ENVIRONMENT

INTRODUCTION

This chapter provides:

- A description of the environment as it presently exists to serve as a baseline for comparison with impacts projected in Chapter 4 for the Alternatives (Chapter 2).

- A description of only those components of the environment likely to be affected by implementation of the Alternatives.

- No consideration of those components not likely to be impacted.

Areawide Resources:

- Cultural Resources
  Paleontology
- Livestock Grazing
  Vegetation
- Minerals
- Realty
- Recreation
- Soils
- Water Resources
- Wildlife

AREAWIDE DESCRIPTION

CULTURAL RESOURCES

Within the Coast/Valley planning area approximately 18,500 acres of public land have been inventoried to Class III standards. There are at least 115 archaeological sites recorded, none of which have been determined eligible for the National Register of Historic Places. However, five sites appear to be of National Register quality.

Due to the varied geography of the planning area and a lack of the inventory data, a statistically valid estimate of the total number of sites and their distribution in the planning area is not presently possible.

Sites date from historic, proto-historic, and prehistoric within the planning area. Site types include small and large open air sites with midden, rock shelters, lithic scatters, temporary camp sites, bedrock milling stations, cemeteries, historic oilfield sites and homesteads.

Conflicts within the planning area result from activities associated with mineral development, livestock grazing and related developments, fire management activities, off-road vehicle activities, and unauthorized collection and/or vandalism.

The available data base for cultural resources on public land within the Coast/Valley planning area is limited; however, a Class I (existing data) inventory of recorded prehistoric, historic, and ethnographic sites (Archaeological Consulting, 1983), a Class II (field sampling) inventory of I category allotments, and a Class III (complete field survey) of 7,800 acres of oil and gas leases completed in 1981 and 1982 by the Bureau have all contributed to the cultural resource data base in the planning area.

Cultural resources located in the planning area may yield important data relevant to central and southern California archaeology. Potential research topics include aboriginal settlement patterns, prehistoric trade and exchange, lithic technology and sourcing, historic mining, early oil industry and historic homesteads.

Native American interest in the planning area at the present time is generally unknown; however, it is likely that Native American groups in the area are interested in protecting the most significant cultural resources such as burials, religious areas, and traditional use areas.

Paleontological Resources

Within the planning area, the Temblor and Caliente Ranges are located on the west side of the San Joaquin Valley and contain important fossiliferous strata and related rock formations of significant scientific value.

Previous studies as documented in existing data (Dr. David P. Whistler, personal communication, 1973) show portions of the planning area to be unique for vertebrate and invertebrate fossil remains. According to Dr. Whistler, the Tertiary sedimentary rocks of the Caliente Range are the most important fossil producing areas in the United States because both marine and terrestrial fossils spanning nearly 20 million years are found in the same sequence of rocks with no such equal occurrence any place else in the world. The Temblor Range constitutes a unique stratigraphic continuum of marine middle Tertiary strata in the California Coast Ranges (Addicott, 1973), and is also a classic area for invertebrate fossils (Reef Ridge). The Temblor formation and Caliente formation (?) have significant paleontological research values. Paleontological resources in these areas are of significant, scientific importance and are nonrenewable components of the existing environment. Field inventory and "type" specimen retrieval along with identification and location of the fossil-bearing deposits should be made since a large portion of these important geologic formations are unstudied by the Bureau and are within the planning area.

Due to the lack of data in the planning area there will not be an analysis for paleontological resources for individual MAs.

LIVESTOCK GRAZING

There are 52 grazing leases on 171,000 acres of public land (see Map 3-1) out of 237,000 acres of public land within the planning area. The average annual grazing use amounts to about 30,505 Animal Unit Months (AUMs) of forage (see Table 3-1). An animal unit month is the amount of forage required for one cow (or its equivalent) for one month.

Livestock operations consist of:

Type	Number
Cattle	35
Sheep	9
Cattle and Sheep	7
Horse	1

See Appendices 2 and 3 for further details on grazing management.

The forage produced is primarily annual grasses and forbs that grow during the cool wet season of the year (winter-spring). Yearly production varies considerably depending on precipitation and temperature fluctuations. Monitoring studies in the Bakersfield District have shown a variation in production from 200 pounds per acre to 3,000 pounds per acre on a given site. This variation in production also dictates the need to annually adjust livestock numbers and/or grazing period to avoid excessive utilization on poor forage years (low production). The current management process does not allow the needed flexibility for livestock operators to make efficient use of the variable production, nor does it allow the Bureau to properly document the utilization that is made annually.

There are no allotment management plans (AMPs) currently implemented within the planning area. There is a potential for 8 allotments to be placed under an AMP in the future.

Allotments with potential for improvement were rated for suitability on Tables 3-2 and 3-3. All areas with slopes greater than 100% were unsuitable. Chaparral or brushy areas with slopes greater than 50% and soils less than 20 inches deep were also rated unsuitable for grazing.

Chaparral or brushy areas with slopes of greater than 50% and soils 20 or more inches deep were rated as potentially suitable. These areas are good candidates for prescribed burning with the objective of providing additional livestock forage.

All other areas were rated as suitable.

TABLE 3-1:

GRAZING ALLOTMENTS

I (IMPROVE) CATEGORY ALLOTMENTS

Allotment Number	Allotment Name	GR No.	Season of Use	Livestock Class	Acreage	Preference AUMs	Management Area
15	North Temblor	1014	Season Long (SL)	Cattle (C) Sheep (S)	29,089	6,464	All allotments are in the Temblor-Caliente Valley MA unless otherwise noted.
31	Sulphur Canyon	1030	12/01 - 07/31	C	15,268	2,182	
44	Selby Ranch	1043	SL	C	15,001	1,600	
53	Temblor-Caliente	1053	SL	C	32,419	4,357	
63	Chico Martinez	1063	SL	C	7,891	1,578	
70	Carrizo Ranch	1071	SL	S	3,791	584	
73	Chimineas Ranch	1074	11/01 - 06/30	C	8,145	2,715	
96	Maricopa Range	1080	10/15-05/15	C	5,364	1,073	
TOTAL "I" CATEGORY	8 Allotments				116,968	20,553	

TABLE 3-1 Cont.:

M (MAINTAIN) CATEGORY ALLOTMENTS

Allotment Number	Allotment Name	GR No.	Season of Use	Livestock Class	Acreage	Preference AUMs	Management Area
03	Naval Petro	1002	11/01 - 05/31	S	1,518	253	Temblor-Caliente Valley MA unless otherwise noted.
04	Catskin	1003	SL	C	880	220	
08	Pleito	1007	SL	C	4,314	1,362	
16	Oil Field	1015	SL	S	5,130	367	
19	Buena Vista Creek	1018	01/15 - 06/30	S	640	107	
21	Frazer Valley	1020	SL	S	2,060	206	
28	Kettleman Hills	1027	SL	C,S	3,193	986	
38	Naval Petroleum	1037	SL	S	2,278	380	
39	Old Arroyo	1038	SL	C,S	480	160	
50	Santa Barbara Canyon	1050	03/01 - 05/01	C	1,769	118	Cuyama MA
57	Santiago Creek	1057	SL	C	2,814	517	
60	Santa Teresa	1060	SL	C	1,627	109	Coast MA
64	Cedar Mtn.	1065	10/15-06/20	C	624	139	
65	Packwood-Franciscan	1066	SL	C	1,995	444	
72	Bitterwater Valley	1073	12/01 - 05/31	C	2,986	747	
106	- -	1087	SL	C	1,479	146	
107	Cienaga Canyon	1088	09/01 - 05/30	C,S	1,994	399	
110	Surprise Arroyo	1091	10/01 - 04/30	C,S	3,454	1,152	
116	Devil's Gulch	1098	SL	C	632	127	
Total "M" CATEGORY	19 Allotments				39,867	7,939	

TABLE 3-1 Cont.:

C (CUSTODIAL) CATEGORY ALLOTMENTS

Allotment Number	Allotment Name	GR No.	Season of Use	Livestock Class	Acreage	Preference AUMs	Management Area
02	Oilfield Road	1001	01/01 - 07/01	S	440	73	
07	Freeborn Mtn.	1006	SL	C	2,400	344	Coast MA
10	Santa Rita	1009	SL	C	160	16	Coast MA
11	Catskin	1010	06/01 - 09/30	C	320	80	Temblor-Caliente/ Valley MA unless otherwise noted
13	- -	1012	SL	C	328	82	
20	Elephant Back	1019	SL	C	80	16	
22	McKittrick Summit	1021	SL	C	160	40	
26	- -	1025	SL	C	1,645	55	Coast MA
27	Bitterwater Valley	1026	09/01 - 05/31	C,S	80	12	
29	Bitter Creek	1028	06/01 - 12/01	C	200	31	
30	Klipstein Ranch	1096	SL	C,S	480	96	
32	Hubbard Hill	1032	12/01 - 05/30	C	4,400	628	Coast MA
35	Red Hill	1034	SL	C	160	3	
41	Derby Acres	1040	SL	C	320	92	
54	Willow Spring Canyon	1027	SL	C	160	32	
55	- -	1055	SL	C	186	23	Ventura MA
62	Curtis Mtn.	1062	SL	C	40	13	
67	Rocky Butte	1068	03/01 - 11/01	C	800	80	Coast MA
69	- -	1070	03/01 - 05/01	S	600	100	

TABLE 3-1 Cont.:

C (Custodial) CATEGORY ALLOTMENTS

Allotment Number	Allotment Name	GR No.	Season of Use	Livestock Class	Acreage	Preference AUMs	Management Area
97	McVan Oilfield	1081	SL	C	200	34	
99	Bitter Creek Drainage	1082	SL	C	240	60	Cuyama MA
108	Paso Robles	1089	01/01 - 03/31	H	40	3	Coast MA
112	Cypress Mtn.	1093	SL	C	400	40	Coast MA
114	Klipstein Ranch House	1095	03/01 - 09/30	C	120	24	
115	Power Line Road	1097	01/01 - 06/30	S	215	36	
TOTAL "C" CATEGORY	25 Allotments				14,174	2,013	
GRAND TOTAL FOR PLANNING AREA					171,009	30,505	

TABLE 3 - 2:

LIVESTOCK USE AND ALLOTMENT SUITABILITY IN THE PLANNING AREA

Forage
Potentially
Management Area
Acres Suitable
(Base AUMs)
Acres

Acres
Unsuitable
Production
Acres

Suitable
Leased

1. Coast	1,275	11,472	0	2,436[1]	4,364[1]
2. Cuyama	178	2,009			
3. Point Sal	0	0			
4. Soda Lake	0	0			
5. Temblor-Caliente/Valley	29,029	157,342	79,167[2]	6,947[2]	30,854[2]
6. Ventura	23	186			
TOTAL	30,505	171,009	79,167	9,383	35,218

1/ Allotments 0007 and 0032

2/ For I Category Allotments Only (All Other Allotments Not Rated for Suitability)

TABLE 3-3:

RANGELAND SUITABILITY - ALLOTMENT SPECIFIC

ALLOTMENT	SUITABLE	POTENTIALLY SUITABLE	UNSUITABLE	NOT SURVEYED	TOTAL
0015 North Temblor	21,285	0	7,804		29,089
0031 Sulphur Canyon	14,235	0	1,033		15,268
0044 Selby Ranch	10,505	1,268	3,228		15,001
0053 Temblor-Caliente	18,505	0	13,914		32,419
0063 Chico Martinez	4,799	0	3,092		7,981
0070 Carrizo Ranch	3,499	0	292		3,791
0073 Chimineas Ranch	975	5,679	1,491		8,145
0096 Maricopa Range	5,364	0	0		5,364
0032 Hubbard Hill	0	1,800	2,600		4,400
0007 Freeborn Mtn.	0	636	1,764		2,400
All Other Allotments				47,241	47,241
Unallotted	15,920	5,560	43,511		64,991
TOTAL	95,087	14,943	78,729	47,241	236,000

Vegetation

The following is a general overview of the existing vegetation within the planning area. Because of the widespread similarity and/or overlap within the MAs, vegetation will not be described in each individual MA. Impacts to vegetation will be addressed under the various identified resources as appropriate in Chapter 4.

The acreage for vegetation types on public land within grazing allotments are displayed on Table 3-4. Lower elevations and drier sites are characterized by the Valley Grassland and Valley Grassland-Brush vegetation types. Some dominant plants contained in these types are:

Forbs

filaree - Erodium botrys, E. cicutarium
peppergrass - Lepidium nitidum

Grasses

annual fescue - Vulpia megalura v. microstachys
arabian grass - Schismus arabicus
red brome - Bromus rubens
soft chess - B. mollis
wild oats - Avena barbata, A. fatua

Shrubs

allscale saltbush - Atriplex polycarpa
pale leaf goldenbush - Haplopappus acradenius ssp. bracteosus
snakeweed - Gutierrezia bracteata

The higher elevations and wetter sites are characterized mostly by Chamise Chaparral, Oak Chaparral, or Foothill Shrub. The Foothill Shrub type is similar to the Valley Grassland-Shrub type with the addition of the following shrubs:

buckwheat - Eriogonum fasciculatum
goldenbush - Haplopappus linearifolius
mormon tea - Ephedra californica

The Chamise and Oak Chaparral types contain a similar mixture of annual grasses and forbs as the plant communities above, but are characterized by the following shrubs:

buckbrush - Ceanothus cuneatus
buckwheat - Eriogonum fasciculatum
chamise - Adenostoma fasciculatum
manzanita - Arctostaphylos glauca
tasslebush - Garrya flavescens

The Oak Chaparral Type also contains:

alvords oak - Quercus Alvordiana
California juniper - Juniperus californica
chaparral oak - Quercus Wislizenii var. frutescens

Approximately 24 candidate plant species occur or have a high potential of occurrence on public land within the planning area (See Appendix 6 for list of species). Due to the lack of data for confirmed sightings of individual species in the planning area: 1) there will be no descriptions of candidate plant species for individual MAs; and 2) there will be no analysis of impacts to these plant species in Chapter 4. Note, however, no actions will be authorized that would jeopardize the continued existence of the species as outlined in the Standard Operating Procedures (Chapter 2) - Wildlife.

MINERALS

The Coast/Valley planning area contains 517,000 acres of surface/subsurface and split estate land available for oil and gas leasing. Approximately 86% of the available area is currently under oil and gas lease. There are 259 producing oil and gas leases out of a total of 1,224 leases in the planning area. Production from these leases is approximately 16 million barrels per year (see Table 3-5) or 5.4% of California's total production (1982) and 15% of the public land acreage production in the planning area (see Map 3-2). All of the planning area has been broadly classified as prospectively valuable for the accumulation of oil and gas by the U.S. Geological Survey (1976). On public land, an average of 200 wells are permitted for drilling for oil and gas, and 100 wells per year abandoned with the area of disturbance reclaimed to a condition as near as practical to what existed prior to drilling. Oil and gas exploration activities are a continuing activity within the sedimentary basins in the planning area with approximately 30 miles of geophysical survey lines conducted on public land per year.

Most of the sedimentary rocks, which make up approximately 80% of the planning area, are not favorable for the accumulation of metallic minerals and not favorable for major deposits (+100,000 tons) of non-metallic minerals (see Table 3-6). The planning area does support commercially produced industrial minerals such as the siliceous shales of the Monterey formation for industrial absorbants and cat box litter, and small local deposits of gypsum. Gypsite deposits are seasonally mined and marketed locally as a soil amendment. As of November 1983, there were 2,137 mining claims recorded with the Bureau within the planning area (see Table 3-7).

One phosphate lease (agricultural additive) and a preference right phosphate lease application are located on the Los Padres National Forest within the planning area. No leasing, permits, or interest has been expressed in the phosphate potential on public land within the planning area. Approximately 37,000 acres of public land in the planning area is classified as prospectively valuable for phosphate representing approximately 7% of the total public land and reserved mineral acreage in the planning area. Sodium resources (500,000 ± tons) within the planning area occur on public land only at Soda Lake. This deposit is classified as prospectively valuable, but not of economic importance or interest.

Sand and gravel, decomposed and weathered bedrock, saleable soil, and common fill material disposed of by the Resource Area by sale, is abundant throughout the planning area; however, demand is low in areas of low population density, and well supplied from existing private sources in more developed areas. Total sale, permitted, and unauthorized use from public land in the planning area is approximately 10,000 tons per year.

TABLE 3 - 4:

ACREAGE SUMMARY OF MAJOR VEGETATION TYPES ON GRAZING ALLOTMENTS

Vegetation Type	Total
Chamise Chaparral	11,603
Oak - Juniper Savannah	2,628
Valley Grassland	43,250
Subshrub	5,204
Valley Grassland-Brush	42,556
Foothill Shrub	56,754
Oak Chaparral	6,990
Oak Savannah	55
Juniper Savannah	2,009
TOTAL	171,009

TABLE 3 - 5:

PRODUCTION STATISTICS FOR PUBLIC LAND IN THE PLANNING AREA (See Map 3-2)

Management Area	Field	No. of Producing Federal Leases	Acres in KGS	Federal Acreage	% Federal Acreage	Federal Production (in 1981 Barrels of Oil)	Total Production of Field (in 1981 Barrels of Oil)	% Federal Production
COAST	Cat Canyon	1	5,000	31	1	3,559	5,311,495	0.07
CUYAMA	Russel Ranch	5	2,748	460	17	26,534	202,574	13
	South Cuyama	7	4,252	3,602	85	149,045	591,045	25
	TOTAL MA	12	7,000	4,062	58	175,579	793,619	22
POINT SAL	-	-	-	-	-	-	-	-
SODA LAKE	-	-	-	-	-	-	-	-
TEMBLOR-CALIENTE/ VALLEY	Asphalto	3	2,000	520	26	110,544	284,300	39
	Belgian Anticline	6	3,364	1,882	56	157,180	291,170	54
	Buena Vista Front	2	26,287	640	2	17,829	267,730	7
	Cal Canal	2	1,480	640	43	1,826	174,965	1
	Capitola Park	2	80	80	100	1,146	1,636	70
	Chico Martinez	2	680	631	93	3,671	13,273	28
	Cymric	4	11,410	1,132	10	10,636	4,292,797	0.2
	Devil's Den	3	400	200	50	2,345	74,220	3

TABLE 3 - 5 Cont.:

Management Area	Field	No. of Producing Federal Leases	Acres in KGS	Federal Acreage	% Federal Acreage	Federal Production (in 1981 Barrels of Oil)	Total Production of Field (in 1981 Barrels of Oil)	% Federal Production
	Edison[1]	2	13,962	320	2	1,600	1,680,313	0.1
	Kern Bluff	2	1,285	210	16	14,416	182,634	8
	Kern Front	16	6,520	1,760	27	768,514	2,540,649	10
	North Kern Front	2	-----	320	--	66,549	---------	--
	Kern River[1]	2	11,196	160	1	92,572	41,740,421	0.2
	Kettleman North Dome[1]	38	21,447	16,410	76	180,651	553,154	33
	Lost Hills	5	6,084	2,281	37	786,279	5,996,238	13
	McKittrick	2	3,733	148	4	55,919	2,469,316	2
	Northeast McKittrick	1	2,880	80	3	8,156	2,250,465	0.4
	Midway	33	32,927	5,964	18	10,650,202	See Midway-Sunset	--
	Midway-Sunset	9	48,318	3,966	8	388,190	43,818,980	0.9
	Morales	1	360	160	44	1,869	2,442	76
	Mt. Poso	25	3,880	3,383	87	611,783	9,194,702	7

TABLE 3 - 5 Cont.:

Management Area	Field	No. of Producing Federal Leases	Acres in KGS	Federal Acreage	% Federal Acreage	Federal Production (in 1981 Barrels of Oil)	Total Production of Field (in 1981 Barrels of Oil)	% Federal Production
	Northwest Lost Hills	1	5,041	640	13	1,017	3,440	30
	Poso Creek	12	7,115	2,149	30	284,323	1,812,184	16
	Pyramid Hills	1	2,160	160	7	5,407	80,985	7
	Round Mountain^1	11	1,970	2,204	112	115,649	432,835	27
	Santiago	1	670	640	96	54,533	--------	---
	Sawtelle	1	----	171	---	33,329	282,167	12
	Semitropic	1	160	160	100	6,670	189,166	4
	South Kettleman	1	---	600	---	12,479	-------	--
	Sunset	24	15,391	2,397	16	206,054	See Midway-Sunset	--
	Taylor Canyon	1	40	167	418	3,764	1,746	--
	Temblor Hills (Temblor Ranch)	1	560	548	98	1,631	255	24
	Wheeler Ridge	1	4,297	160	4	94,778	413,160	23
	Total MA	218	235,697	50,883	22%	14,751,511	119,045,343	12%

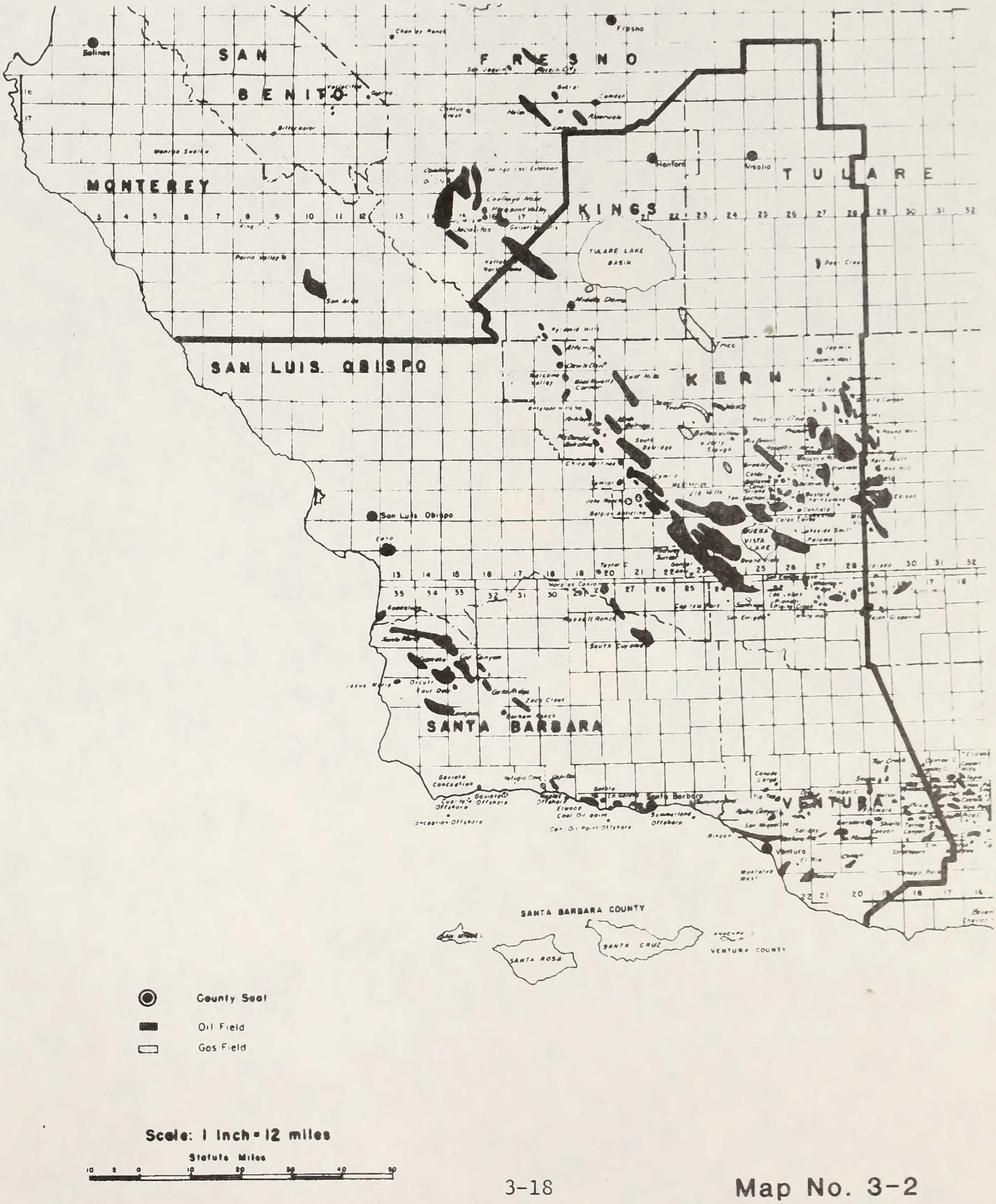
TABLE 3 - 5 Cont.:

Management Area	Field	No. of Producing Federal Leases	Acres in KGS	Federal Acreage	% Federal Acreage	Federal Production (in 1981 Barrels of Oil)	Total Production of Field (in 1981 Barrels of Oil)	% Federal Production
VENTURA	Oak Canyon[1]	2	640	960	150	184,058	309,058	60
	Piru	1	---	120	---	6,789	3,157	--
	Ramona[1]	1	1,072	320	30	7,163	152,914	5
	Rincon	1	565	40	7	4,956	1,735,025	0.3
	Sespe	9	240	2,740	---	622,078	1,403,946	44
	Sespe-Tar Creek	3	930	328	35	64,782		
	Sespe-Topo	3	2,332	491	21	134,894	1,369,766	14
	South Mountain	4	5,228	1,097	21	151,394	1,098,123	14
	Topia	2	402	119	30	12,400	28,976	43
	Temescal	1	410	54	13	22,059	50,163	44
	Timber Canyon	1	---	2,486	--	885	79,087	1
	TOTAL MA	28	11,819	8,755*	74%	1,211,458	6,230,215	19%
	TOTAL PLANNING AREA	259	259,516	63,731	25%	16,142,107	131,380,672	12%

[1] Split Management between Management Areas
* Partial Forest acreage

COAST VALLEY PLANNING UNIT

Oil and Gas Fields



Map No. 3-2

TABLE 3 - 6:

MINERAL POTENTIAL ON PUBLIC LAND IN THE PLANNING AREA

Management Area	Identified Economic* Reserves	Identified Subeconomic* Reserves	Potentially Valuable
1. Coast	Oil and Gas	Building Stone Clays Gypsum/Gypsite Mercury Siliceous Shale	Asphalt Barite Chromite Diatomite Geothermal Gold Jadeite/Nephrite Limestone Manganese Phosphate Platinum Group Tar Sand/Heavy Oil Uranium
2. Cuyama	Sand and Gravel Oil and Gas	Gypsum/Gypsite	Phosphate
3. Point Sal	------	Gold Zirconium	Oil and Gas Platinum Group
4. Soda Lake	------	Clay Minerals Sodium Sulphate	Oil and Gas
5. Temblor-Caliente/Valley	Diatomite/Siliceous Shale Gypsum/Gypsite Oil and Gas Sand and Gravel	Asphalt Building Stone Clay Minerals Sulphur Tar/Oil Sand Uranium	Phosphate Vanadium
6. Ventura	Oil and Gas	Building Stone Gypsum/Gypsite	Geothermal Phosphate Sand and Gravel Uranium

* After U.S. Geological Survey Classification System

TABLE 3 - 7:

MINING CLAIM DISTRIBUTION IN THE PLANNING AREA

Management Area	Placer	Lode	Mill-site Entry	Tunnel Site
Coast	77(USFS) 25(BLM)	271(USFS) 53(BLM)	1(USFS) 1(BLM)	0 0
Total	102	324	2	0
Cuyama	0	0	0	0
Point Sal	0	0	0	0
Soda Lake	0	0	0	0
Temblor-Caliente/Valley	534(BLM)	682(BLM)	135(BLM)	1(BLM)
Ventura	180(USFS)	174(USFS)	1(USFS)	2(USFS)
SUBTOTAL	816	1,180	138	3
TOTAL	2,137			

USFS = U.S. Forest Service

REALTY

Table 3-8 depicts the public land acreage within the planning area.

Approximately half of the land within the planning area occurs in two large blocks around the Caliente Mountains and the southern Temblor Range. The remainder of the public land occurs in scattered parcels of 40 acres to 3,000 acres in size. Private land surrounds almost all of the public land. Some parcels adjoin land managed by the Los Padres National Forest. Many of these adjoining parcels could potentially be managed more effectively by the Forest Service and should be reviewed in the future for this purpose.

The interest in sales of public land within the planning area is expected to be fairly heavy due to the land proximity to large population centers (see Appendix 7 for Criteria Used for Determination of Land Tenure Adjustment Alternatives). Realty actions on the public land consist mainly of rights-of-way for roads, pipelines, utilities, and communication sites.

RECREATION

The Coast/Valley planning area primarily represents a semi-primitive. open space recreation resource on widely scattered parcels of public land. Major forms of recreation include hunting, trapping, target shooting, ORV use, hiking, horseback riding, wildlife observation, and camping. Recreation use in 1983 on public land is estimated at 132,200 visitor hours.

SOILS

Soil survey reports are available for most of the planning area, but major soil data gaps exist for the Caliente Range and Temblor Range. However, these areas are soon to be surveyed by the Soil Conservation Service. The soils in the planning area vary widely in their characteristics and potentials, but are generally suitable for existing or planned uses. Most of the soils are residual, that is, they occur on hillsides, and are underlain by bedrock at varying depths. Some of the soils are alluvium, occurring on valley floors or alluvial fans. The major restrictive features of the soils in the planning area are slope, shallowness, and the hazard of soil erosion. Localized restrictive features will consist of clayey textures, wind erosion potential, soil slippage, or excess salinity.

WATER RESOURCES

The planning area falls within the Tulare Lake, Central Coast and the Santa Clara - Calleguas Hydrologic Basins (State Water Resources Control Board 1975). The Bureau conducted an inventory of water resources in 1982 since very little hydrologic data was available (USDI - BLM, 1982).

Widely scattered, intermittently flowing springs and streams were inventoried in the eastern portion of the planning area. Water quality was generally poor in this semi-arid area. Levels of some constituents were too high to meet drinking standards or criteria for livestock and wildlife uses.

The western portions of the planning area have a more humid climate. Streams and springs were encountered more frequently during the inventory in these areas and they had greater discharges. Water quality was generally much better than in the eastern portion of the planning area.

TABLE 3 - 8:

PUBLIC LAND ACREAGE IN THE PLANNING AREA

Management Area	Surface Only(acres)	Surface/Subsurface(acres)	All Minerals	Subsurface Only Oil and Gas	Other Minerals
1. Coast	------	45,490	35,660	4,690	-------
2. Cuyama	------	7,220	13,270	1,500	-------
3. Point Sal	------	50	------	-----	-------
4. Soda Lake	------	2,970	------	-----	-------
5. Temblor-Caliente/ Valley	560	178,290	120,340	92,480	640
6. Ventura	------	2,550	5,500	4,800	1,560
TOTAL	560	236,570	174,770	103,470	2,200

GRAND TOTAL = 517,570

Consumptive water uses in the planning area consist primarily of livestock and wildlife watering. Important nonconsumptive uses include maintenance of aquatic and terrestrial wildlife habitats and riparian vegetation maintenance. In some areas, recreation use is an important nonconsumptive use.

In some areas, uses such as livestock grazing, ORV use, mining activities, and road construction are causing accelerated erosion and sedimentation of stream channels.

WILDLIFE

The planning area contains approximately 400 species of wildlife including numerous raptors, passerine birds, mammals, reptiles, and amphibians. Only key species and their habitats are given consideration in this plan. These species include those of economic interest such as deer, upland game, California quail, chukar, and dove. In addition to game species the planning area supports six federally threatened and endangered species and two state listed rare and endangered species. These eight species include the California condor, bald eagle, blunt-nosed leopard lizard, San Joaquin kit fox, brown pelican, southern sea otter, San Joaquin antelope ground squirrel, and the giant kangaroo rat.

In the early 1960s the Temblor and Caliente National Cooperative Land and Wildlife Management Areas were established to manage for upland game through cooperative agreements with the California Department of Fish and Game. These areas have been withdrawn from application under the non-mineral public land laws and from disposal under desert land entry. The Cooperative Areas include approximately 115,000 acres in the Temblor and Caliente Ranges.

Kern and Pixley National Wildlife Refuges (21,000 acres) and the remnant marsh on public land at Goose Lake support most populations of waterfowl and shorebirds within the planning area. However, Soda Lake supports approximately 6,500 lesser sandhill cranes and a high species diversity associated with wetland habitats.

In the planning area there is approximately 123,260 acres of upland game habitat which supports four federally listed species and two state listed species. In addition 109,000 acres of the planning area is considered habitat for resident deer populations in which approximately 120 to 200 deer reside in the Temblor Range. Overall populations in the planning area are considered low due to poor browse conditions and fawning cover.

Due to the limited number of natural water sources within the planning area and the lack of data regarding the aquatic species associated with these water sources, no description of or impacts to these species will be addressed in Chapters 3 and 4. However, impacts to these species will be minimized as per the Standard Operating Procedures (Chapter 2). Inventory data will be gathered and compiled subsequent to this document during preparation of site specific environmental analyses for proposed actions. This will ensure full consideration of aquatic species at that time.

MANAGEMENT AREA 1: COAST

CULTURAL RESOURCES

No known National Register quality sites are recorded in the MA. Primary conflicts are fire management activities and unauthorized collecting.

LIVESTOCK GRAZING

There are currently 7 grazing leases within this MA which are primarily grazed in conjunction with adjoining private land. Approximately 1,572 acres of public land within the Santa Teresa Allotment (0060) is rated potentially suitable for grazing. If prescribed burned, an estimated 262 AUMs of forage will be made available for livestock and wildlife. An additional 5,560 acres of public land which is currently unallotted is potentially suitable for livestock grazing if prescribed burned.

MINERALS

Public land and reserved minerals represent approximately 3% of the Coast MA (85,840 acres).

Geophysical exploration operations on public land in this MA are infrequent, accounting for only 2 miles of line per year on average. Under present management, all of this MA is open to truck mounted equipment on existing roads, ways, and trails, and subject to stipulations for the conduct of operations for cross-country lines, where possible. 45,500 acres of federal surface and subsurface are available for oil and gas exploration operations.

Under present management, 26% (22,318 acres) of this MA are under oil and gas leases representing annual rental payments of $22,300 per year. Production in this MA is small, representing only 0.07% of the total yearly production (793,619 bbls). Applications for permits to drill (APDs) and well abandonments occur at less than one per year. No applications to drill on federal leases were filed in this MA during the 1983 calendar year. All public land in this MA is considered prospectively valuable for oil and gas by the U.S. Geological Survey (1976).

All public land not previously withdrawn from mineral location is open to mineral entry. This MA contains 430 mining claims, 80% of which are located on land administered by the U.S. Forest Serivce. Major development of the locatable mineral resources on public land has been for mercury in the Cypress Mountain and Santa Margarita Lake areas; the main developments have been patented under mining laws leaving bits and pieces of public land on their perimeters. Major mercury mining districts are the Santa Lucia Range, Cypress Mountain area, and Rinconada Mine area. No mercury operations are ongoing in this MA. Small scattered placer gold operations also exist but are not commercially productive; these are located mainly in the La Panza mining district on the national forest.

All of this MA is open to hardrock leasable mineral exploration; however, no applications have been received for public land and no interest expressed. Areas of geothermal potential do exist in this MA, notably the 200-acre Paso Robles Basin and portions of Los Padres National Forest extending west of Wheeler Springs to Gaviota Pass. Public land is generally scattered and difficult to access, discouraging any exploration for geothermal resources. Phosphate leasing and permitting occurs on national forest land and is subject to U.S. Forest Serivce administration for surface resource impacts.

There are no KGRAs or KLAs in this MA; no lease applications have been filed, and no requests for saleable minerals.

No development has occurred as the result of leasing or mineral material sales. Public land is generally so inaccessible and/or isolated that development of saleable minerals is not feasible.

REALTY

No large blocks of public surface occur within this MA, rather many widely scattered parcels are present. There appears to be a high potential for disposal by public sale for many of these parcels. Some right-of-way grants exist for roads, utility lines, and communication sites. Public interest in any sales is expected to be high due to the coastal location and proximity to many towns.

RECREATION

The MA receives about 25,000 visitor hours of use per year, most of it situated on public land near Lake Nacimiento and Santa Margarita Lake (approximately 1,000 acres and 1,200 acres, respectively). This use includes mostly hunting, with some hiking, horseback riding, and ORV use. Steep terrain, thick vegetation, and general lack of legal or physical access have limited the recreational opportunities and use in this MA.

The Los Padres National Forest has expressed interest in a trailhead for hiking and horseback riding in the vicinity of the Rinconada Mine to provide access into the neighboring Santa Lucia Wilderness Area.

SOILS

Many shallow, steep soils occur in this MA in a chaparral-type landscape. Some moderately deep and deep soils are present. Textures generally range from sandy loams to clay loams. Soil erosion due to reduced plant cover and/or compaction is the main hazard.

WATER RESOURCES

The MA falls within the San Luis Obispo Coastal, Salinas, Santa Maria River, San Antonio, and Santa Ynez Subbasins of the Central Coastal Hydrologic Basin (State Water Resource Control Board, 1975). The Bureau conducted an inventory of water resources in 1982 since very little hydrologic data was available (USDI - BLM, 1982). The coastal and foothill environments support more water sources with greater discharge and better water quality than in other MAs.

Discharges, water quality, channel stability, surface erosion, and watershed conditions were recorded for five streams in this area. All five streams were flowing; the greatest flows occurred in the Salinas River. Four of the five streams were in good condition. Riconada Creek was in poor condition due to disturbance by mining. Several intermittent streams are directly tributary to water supply reservoirs.

Discharges, water quality, and erosion conditions were recorded for two springs. Santa Lucia Spring had the greatest discharge at 15 gallons per minute.

Although better than other MAs, the water quality of inventoried streams did not meet drinking water standards due to pH levels and color values that exceeded standards. Although bacteria levels were not tested, water quality would be unsuitable for human consumption wherever grazing occurs. Stream water quality did meet criteria for livestock and wildlife uses. Santa Lucia Spring had very good water quality.

Consumptive water uses consist primarily of livestock and wildlife watering. Important nonconsumptive uses include maintenance of aquatic and wildlife habitats, riparian vegetation maintenance, aesthetic and visual resource maintenance, and recreation use. These uses require that natural flows and good quality be maintained.

Mining, livestock grazing, and associated activities are causing accelerated erosion and stream sedimentation in some areas.

WILDLIFE

This MA provides approximately 5,000 acres (a total of several scattered tracts) of upland game habitat. Most public land lacks legal public access so hunting and wildlife mangement opportunities are limited. Information on game populations and habitat conditions have not been developed. Limited numbers of deer and feral pigs may also be found on some of the parcels. California condors use the MA and a small portion of critical habitat is on public land. That parcel is within a designated wilderness area (Santa Lucia).

MANAGEMENT AREA 2: CUYAMA

CULTURAL RESOURCES

One National Register quality site is recorded in the MA. The site is in good condition. At the present time there are no known conflicts.

LIVESTOCK GRAZING

Two grazing leases in this MA are used in conjunction with adjoining private land. No other public land areas have been identified as suitable for grazing within this MA.

MINERALS

Approximately 7,200 acres of federal surface and subsurface mineral rights are 15,000 acres of reserved minerals are open to exploration, leasing, location, and permit.

Oil and gas development and production is relatively widespread in this MA; however, little of the activity is on public land. Many of the producing fields are old, and production is declining. An average of less than one well per year is drilled and one abandoned on federal leases in this MA. At present 57% (14,000 acres) of this MA is under oil and gas lease representing annual rentals of $14,000. Annual federal oil and gas production accounts for approxmately 176,000 barrels, 22% of the total production in this MA. Less than one mile per year of geophysical survey lines are run in this MA. All of this MA is considered prospectively valuable by the U.S. Geological Survey for oil and gas.

All land not previously withdrawn from mineral entry is open to mining claim location. Currently there are no mining claims in this MA. There has never been any historical interest in locatable mineral development in this MA.

All of this MA is open to geothermal exploration and leasable mineral prospecting and development. Identified deposits of phosphate are known on the adjacent forest land, including one lease where the phosphate reserves are used as a soils amendment. Phosphate prospecting permit applications have been filed on national forest land adjacent to this MA. Minor subeconomic phosphate resources exist on public land, mainly in the southwestern portion of the Caliente Mountains. No KGRAs or KLAs have been designated in this MA; no leases have or are expected to be issued since interest has been low.

No development is occuring for saleable minerals on public land in this MA. The Cuyama riverbed is considered a prime source for sand and gravel sales, approximately 200 acres of potential reserves exist in this MA; however, due to the existence of sand and gravel sites on private land, and the sparcely populated market area, interest is low to develop the salable resources.

REALTY

Approximately 25 scattered parcels of public surface occur in this MA. Some right-of-way grants for roads and utility lines are present. Some of these parcels appear to have definite possibilities for disposal by public sale.

Some have agricultural potential, as evidenced by a recent unauthorized agricultural operation on one parcel. Public interest in sales in this MA is expected to be high.

RECREATION

This MA receives about 13,000 visitor hours per year which includes mostly ORVs, hunting, trapping, and camping. Most of the use occurs along the 1,200 acres of public land along the Cuyama riverbed in the form of ORV play (good access immediately off of Highway 33). Some ORV use spills over onto public land from the Los Padres National Forest's Ballinger Canyon ORV Area. Many of the parcels in this MA are landlocked by private land with no legal or physical access.

SOILS

Many loamy, deep or moderately deep soils occur in this MA. Some are on steep slopes of dissected terraces. Much of the acreage consists of sandy and gravelly soils on the flood channel of the Cuyama River. On the hillside soils within the MA there is a moderate soil erosion hazard due to reduced plant cover and/or compaction. The Ballinger Canyon area exhibits soils that have been impacted by ORV activity and are undergoing accelerated soil erosion.

WATER RESOURCES

The MA falls within the Santa Maria River Subbasin of the Central Coast Hydrologic Basin (State Water Resources Control Board, 1975). The Bureau conducted an inventory of water resources in 1982 since very little hydrologic data was available (USDI - BLM, 1982).

Channel stability, surface erosion, and watershed conditions were recorded for the Cuyama River and two other streams in the area. All three were dry at the time of the inventory. No springs were inventoried. All water sources flow intermittently or ephemerally. Lack of water in this area severely limits opportunities for more intensive management. Water uses during periods of flow will consist of livestock and wildlife watering.

The banks of inventoried streams were collapsing due to livestock trampling. Gullying and sheet erosion were occurring. ORV use in Ballinger Canyon is causing accelerated erosion.

The Cuyama Valley has been identified by the State as a groundwater basin subject to critical conditions of overdraft (California Department of Water Resources, 1980). Management of public land can help mitigate this problem by taking measures to maintain uncompacted permeable soil conditions and a protective vegetative cover.

WILDLIFE

Approximately 2,000 acres of this MA have been identified as habitat for the blunt-nosed leopard lizard and San Joaquin kit fox. Habitat conditions and limiting factors are the same as described for the Temblor-Caliente/Valley MA.

An apparent hybrid between the blunt-nosed leopard lizard and the long-nosed leopard lizard has been found in Ballinger Canyon. This is the only known population of the hybrid.

Approximately 500 acres along the Cuyama River supports upland game species such as quail, dove, and cottontail.

MANAGEMENT AREA 3: POINT SAL

CULTURAL RESOURCES

Two National Register quality sites are recorded on public land in the MA. Both sites are threatened by erosion from the ocean. Primary conflicts are from oil and gas development, erosion, and unauthorized collection.

MINERALS

Under present management two oil and gas lease applications have been rejected, representing a loss in annual rental of $50.

Although this MA is open to entry under the Mining Laws, none have been filed.

The MA is open to geothermal exploration and mineral prospecting and development. Geologic conditions are not favorable to either of these resources and they are considered to have no development potential. Due to location, accessibility, quality and quantity, sand at Point Sal is not considered saleable.

There exists a nationally significant ophiolite sequence of crustal rocks which is unique because of its completeness. This is an unique example of intact crustal rocks which can lead to an increased understanding of plate tectonic theory and the geologic history of the Coast Ranges.

RECREATION

This MA receives about 5,000 visitor use hours per year in the form of hikers, campers, and light ORV use. The steep terrain dropping off into the Pacific Ocean has limited vehicle use to the existing 0.5 mile long vehicle access route. Most individuals, however, do not drive to the site but walk westward along the beach or bluffs from Pt. Sal State Beach (when access is allowed to the state facility through Vandenberg Air Force Base).

SOILS

Loamy, shallow soils overblown with beach sand and steep, rocky soils comprise most of this MA. Both wind erosion and water erosion are a hazard here, due to reduced plant cover and/or compaction.

WILDLIFE

Site specific wildlife data on public land at Point Sal are lacking. A report by Pawlowski and Denneen (no date) lists 34 birds and 14 species of mammals utilizing the area. This species list includes the brown pelican (federally endangered) and the southern sea otter (federally threatened). Existing population levels, habitat conditions, and impacts are largely unknown. This is the only parcel of public land in the planning area containing the high diversity of coastal species.

MANAGEMENT AREA 4: SODA LAKE

CULTURAL RESOURCES

No National Register quality sites are recorded on public land in the MA. The one recorded site is in poor condition. Primary impacts are from natural weathering and erosion.

LIVESTOCK GRAZING

There are currently no grazing leases in this MA. The 760 acres of public land which are suitable for livestock grazing consist of Alkali Sink and Valley Grassland Type vegetation.

MINERALS

An oil and gas leasing environmental assessment addressing all public land in this MA concluded that leasing for oil and gas is not in the public interest. Exploration activities NOIs are occasional in this MA; however, due to the physical inaccessiblity of the MA to heavy equipment movement, most exploration activities have bypassed this MA.

Although this MA is currently open to locatable mineral entry, no mining claim locations have been filed; probably due to lack of known locatable mineral resources.

This MA is open to geothermal exploration; however, geologic conditions are not favorable for this resource and it is considered to have no development potential. Soda Lake contains an estimated 500,000 tons of sodium sulphate. This deposit was previously developed in the 1920's and 30's by evaporization methods. The salts were trucked to Maricopa where it was shipped by rail to the paper products industry. The U.S Geological Survey has classified this deposit as prospectively valuable. In the past and at present, larger deposits east of the Sierra Nevada Mountains has supplied the U.S. market for sodium salts making this deposit subeconomic to market at this time and in the foreseeable future.

The only saleable minerals within this MA are the thick layers of clay which are prevalent under 90% of this MA. Reserve estimates have not been determined; however, no interest or market exists for the saleable commodity in this MA.

RECREATION

This MA receives approximately 7,200 visitor hours annually which includes birdwatchers, hunters, hikers, and some ORV use. Ten miles of vehicle routes exist in the area to the edge of the lake. Accumulation of rainwater eliminates access on the lakebed itself during extended periods of time. ORVers have attempted to cross the lakebed when dry, however, many vehicles have broken through the thin mineral crust and gotten stuck. The area is a migratory fly-way used by migratory waterfowl and is popular for hunters and birdwatchers on a seasonal basis.

SOILS

The lakebed itself is composed of clayey soils with a high water table. They have very low bearing strength, a light-colored salt crust, and are periodically flooded in wet years. No vegetation is present in the lakebed. Soils on the rim of the lakebed have clayey subsoils and are strongly saline-alkali. Soil erosion due to surface disturbance is the main hazard in this MA.

WATER RESOURCES

The MA falls within the Soda Lake Subbasin of the Central Coast Hydrologic Basin (State Water Resources Control Board, 1975). The Bureau conducted an inventory of water resources in 1982 since very little hydrologic data was available (USDI - BLM, 1982).

The most important water resources in the area are Soda Lake and its tributaries. Soda Lake is a natural saline lake. Although water is plentiful during winter and spring months, the saline water cannot be used for consumption or agricultural uses. The primary beneficial uses of the lake's water, as identified by the Central Coastal Region of the State Water Quality Control Board (1975), are for maintaining extremely productive aquatic and terrestrial wildlife habitats. Natural inflows into the lake need to be protected to maintain these uses.

WILDLIFE

Up to 6,500 lesser sandhill cranes winter in the Carrizo Plain and use shallow water areas of the lake for roosting and loafing. Most of the feeding activity takes place on adjacent private land. Roosting cranes avoid human disturbance by maximizing their distance and visual isolation from human activity (Lovvorn, 1981). Waterfowl and shorebirds also use the lake during the winter, and nest in the area in years of above average rainfall. Waterbirds at Soda Lake provide a source of food for the federally endangered southern bald eagles that winter in the area.

The 760 acres of upland game habitat in the MA support blunt-nosed leopard lizard, San Joaquin kit fox (and their prey base), giant kangaroo rats, San Joaquin antelope ground squirrels, and up to thirteen species of raptors (and their prey base).

The remnant alkali marsh and surrounding upland game habitat and associated species diversity make the MA unique and of high priority for management. A habitat management plan for Soda Lake was completed in December, 1982.

MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

CULTURAL RESOURCES

Two National Register quality sites are recorded on public land in the MA. Both sites are in good condition. Primary conflicts are from oil and gas development, livestock grazing, and unauthorized collection. All other known sites are in poor to good condition.

LIVESTOCK GRAZING

This MA contains the majority of grazing leases for the planning area, a total of 37 leases. Eight of these leases have large areas of public land that have some potential for improvement of forage or other resource values. Of the eight, at least one lease has shown a reduction in the amount of shrub cover. The remaining 29 leases are grazed primarily in conjunction with adjoining private land and have been rated as satisfactory in regards to the forage resource.

Approximately 6,990 acres of public land within allotments 0031, 0044, and 0070 have been rated as potentially suitable. If prescribed burned, an estimated 1,316 AUMs of forage will be made available for livestock and wildlife.

An additional 15,160 acres of public land which is currently unallotted, is rated as suitable for livestock grazing.

MINERALS

Public land represents a valuable resource in this area, yet it is not a controlling factor in the overall development of this region. Approximately 180,000 acres of federal surface and 213,000 acres of reserved minerals are available for exploration, leasing, and location. Federal and split estate land combined is only 8% of all land area within the boundaries of the MA, the entirety of which has been classified as prospectively valuable by the U.S. Geological Survey. Large scale commercial development and production would continue to characterize this MA even without the inclusion of public land. Under present management 80% of public land in this MA is under lease, 13% of the public land in this MA is in a KGS. This represents annual rental payments of $410,000 (not including royalties from production which is charged against 15 million barrels or 12% of total production in this MA). All of this MA is considered propospectively valuable for oil and gas by the U.S. Geological Survey. Under present management all of this MA is subject to development within legal constraints. The most concentrated development occurs on KGSs. During 1983 approximately 200 wells were drilled on public land in this MA and 100 wells were abandoned and reclaimed.

Due to the complex stratigraphic and structural nature of the sedimentary basin, exploratory operations are continuously working to gather additional and more detailed information. Typical geophysical exploration is performed by using truck-mounted equipment on roads, trails, or gentle topography. Ideally, the information generated provides a cross sectional view of the sedimentary sequences along the line of travel. Geophysical lines tend to run from adjacent land, onto public land for short distances, and back onto adjacent land. The 25 miles per year of line run on public land may represent

30 or 40 separate lines. Most of the geophysical survey operations are run on private land.

This MA is dominated by young, immature sedimentary deposits which have experienced little, if any, metamorphic alteration. This is not a favorable geologic environment for the majority of locatable minerals, especially precious metals and nonmetallic minerals. Mining does occur on a commercial scale for siliceous shale, commonly used as cat box litter in two open pit mines in the southeastern Temblors. Other much smaller discontinuously operated open pits are being worked in the eastern Temblors for gypsite, which is used locally as a soil additive. A flurry of interest during 1980-1982 in disseminated uranium deposits (secondary enrichment) resulted in approximately 380 mining claims being filed in the eastern Temblor foothills. Although some exploratory drilling was performed most of the claims were dropped within one or two years. All land not previously withdrawn is open to mineral entry in this MA. Currently there are 1,350 mining claims in this MA. Most of the development is for siliceous shale (cat box litter); 11,000 acres are under claim for this purpose. Minor development has and is occurring on land claimed for gypsite (1,300 acres).

Under present management, all of this MA is open to geothermal and leasable mineral exploration. This MA does not contain geologic conditions favorable to geothermal resources, and no exploration has occurred. A few warm springs have been documented on private land. No known deposits of solid leasable minerals occur in this MA.

The occurrence of sand and gravel is high in this MA. Large (approximately 8,000 acres) deposits of sand and gravel outcrops are located along the eastern margin of the Temblor Range. Demand for sand and gravel is dependent on construction and industry (oil and gas) in the immediate area. At this time and for the foreseeable future, there is abundant sand and gravel being commercially produced from private land to supply demand in the area. Deposits on public land become convenient and more economic when the need for material arises nearby. Such is the case for the Southlake materials site near Buena Vista Lake which supplies road material to the county. They use about 2,000 cubic yards per year. One request for sale on an isolated 40-acre parcel was received from a pit operator on adjacent land.

An outstanding example of the San Andreas Fault Scarp is located in the Elkhorn Plain area of this MA. This unique exposure has been the focus of a great deal of geologic study into the tectonic and earthquake history of California.

REALTY

The largest blocks of public surface occur in this MA, as well as many scattered parcels in the Temblor Range and San Joaquin Valley. The MA has the highest number of right-of-way grants in the planning area. Most of these are related to oil and gas operations, roads, utility lines, and communication sites. There is interest in agricultural development for some of the parcels in the San Joaquin Valley, either through lease or Desert Land Entry (at least six different parcels, four formal proposals). There appears to be high potential for disposal through public sale on some of the scattered parcels.

RECREATION

This MA receives about 81,000 visitor hours annually (75% hunting and target shooting, 25% all others including ORV use, hikers, rockhounds, horseback riding, and wildlife observation). Many of the public land parcels in this area are isolated and scattered. Physical and legal access is difficult for the public to obtain on most parcels, and a demand exists to open areas such as the Caliente Range for hunting, hiking, and ORV use.

Most of the existing use occurs in the Temblor Range (hunting, ORV, rockhounds, hikers, wildlife observation, etc.) with approximately 7,000 acres in the east-central portion of the range seeing the heaviest visitation. The Kettleman Hills receives widespread ORV use on approximately 5,000 acres of public land, however, use is declining in this area due to fences being erected on public land along oil and gas lease boundaries. Target shooting is popular throughout the accessible parcels of public land in this MA and is a particular safety and trash problem along Highway 65 near Poso Creek.

SOILS

Soils within the Temblor Range and Caliente Range are mostly shallow to moderately deep, with loamy or clayey textures. They are underlain by sedimentary bedrock such as sandstones and shales. Many are on steep slopes and have a high erosion hazard. The scattered parcels that occur in the San Joaquin Valley generally have very deep, loamy soils that are suitable for agriculture, given sufficient irrigation. Some of these soils have a slight saline-alkali condition.

WATER RESOURCES

The MA falls within the Tulare Lake and Central Coast Hydrologic Basins (State Water Resources Control Board, 1975). The Bureau conducted an inventory of water resources in 1982 since very little hydrologic data was available (USDI - BLM, 1982).

Discharges, water quality, channel stability, surface erosion, and watershed conditions were recorded for widely scattered streams in this semi-arid area. Of the nine miles of stream that were inventoried only two miles contained flowing water. Discharges for flowing streams were low; the largest measured flow was 13 gallons a minute.

Discharges, water quality, and erosion conditions were recorded for 14 springs. Discharges of springs were also low; the largest measured flow was 60 gallons a minute.

No perennially flowing streams or springs exist in the area. All sources flow intermittently or ephemerally. Lack of water in this area severely limits opportunities for more intensive land management.

The water quality of inventoried streams and springs was generally poor. Most water sources did not meet drinking water standards or criteria set for wildlife and livestock consumption. Sulfate, fluoride, total dissolved solids, and electrical conductivity levels were too high to meet these standards.

Consumptive water uses consist primarily of livestock and wildlife watering. Important nonconsumptive uses include maintenance of aquatic and wildlife habitats. These uses require that natural flows be maintained.

Natural erosion rates in the Temblor and Caliente Ranges are high. Low precipitation has limited the growth of protective vegetation. In addition, erosive soils and infrequent intense rainstorms are causing qullying of stream channels. High natural erosion rates are being accelerated by livestock grazing, ORV use, mining, and road construction in some areas.

WILDLIFE

I. Rare, Threatened, and Endangered Species

A. San Joaquin Kit Fox - (Federally Endangered, State Rare)

The San Joaquin kit fox (SJKF) requires undisturbed denning sites, and kangaroo rats, mice, and rabbits for food. This MA contains 90,300 acres of known SJKF habitat. Essential habitat for SJKF has not been officially designated. However, the Carrizo and Elkhorn Plains have been given a high priority for designation as critical habitat by the SJKF recovery team.

B. Blunt-nosed Leopard Lizard - (Federally Endangered, State Endangered)

The blunt-nosed leopard lizard (BNLL) requires insects for food from spring through fall, and burrows for shelter, hibernation, and egg laying. Shade from shrubs also provides cover and habitat for the BNLL prey base. Shrubs are especially important in summer and early fall for hatchlings. Low shrub densities are thought to be one of the limiting factors on BNLL populations. Over 90,000 acres of BNLL habitat occurs in the MA, including 8,000 acres of essential habitat.

C. California Condor - (Federally Endangered, State Endangered)

California condors use the Elkhorn Plain primarily for feeding during the spring and summer. Condors feed on carrion from livestock and wildlife. At least one historic nest site is known in the Temblors. Although the current total number of condors in the wild may be as few as 20, the entire MA is within historic condor range.

D. Giant Kangaroo Rat - (State Endangered)

The giant kangaroo rat requires soils condusive to burrowing and seeds from grasses and forbs for food. Individual adults may cache up to 33 quarts of seeds. BLM surveys have identified 5,000 acres of occupied giant kangaroo rat habitat. Giant kangaroo rats also provide a prey base for SJKF and burrows for use by BNLL.

F. San Joaquin Antelope Ground Squirrel - (State Rare)

This species also requires soils condusive to burrowing. San Joaquin antelope ground squirrels prefer to burrow under saltbush and _Ephedra_ sp. and feed on both plant parts and insects. Approximately 67,000 acres of mixed shrub-grass habitat in the MA are occupied by San

Joaquin antelope ground squirrels. SJKF prey on this species and BNLL use its burrows.

II. Waterfowl and Shorebirds

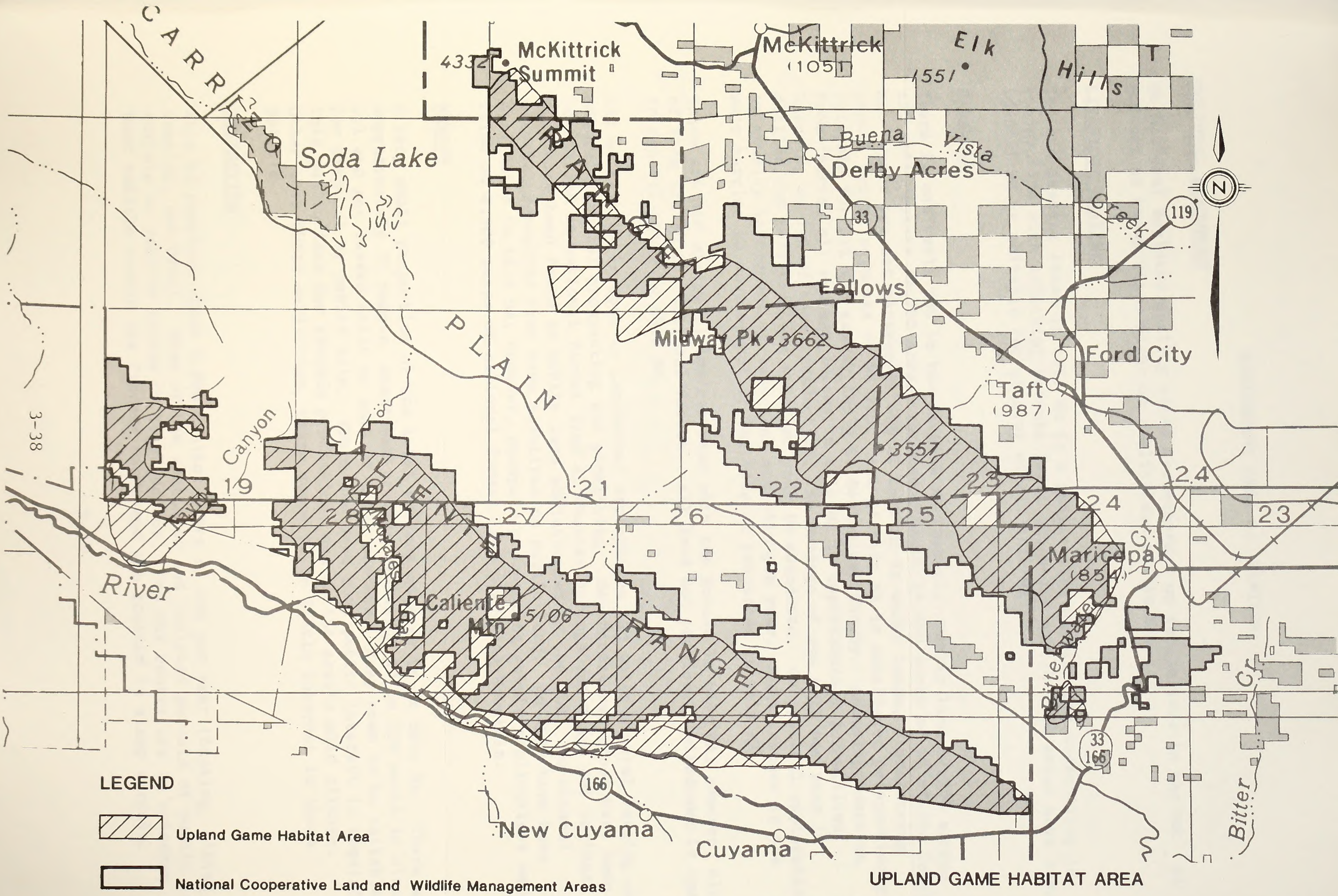
The only major concentration areas for waterfowl and shorebirds within this MA occur on 21,000 acres of National Wildlife Refuge lands (Kern and Pixley), and the remnant marsh on public land at Goose Lake.

III. Upland Game

Most of the MA (over 117,000 acres) provides habitat for several species of upland game, including valley quail, mourning dove, chukar, cottontail and jackrabbits. Low shrub densities and lack of dense ground cover near water sources are the primary limiting factors on upland game populations. The Temblor and Caliente National Cooperative Land and Wildlife Management Areas (hereinafter, Cooperative Areas) were established in the mid 1960's primarily to manage upland game (see Map 3-3). A total of 48 upland game guzzlers have been constructed within the 115,000 acres covered by the Cooperative Areas. Although water distribution is good, escape cover is limited surrounding most water sources.

IV. Deer

Although over 109,000 acres of the MA are considered habitat for resident deer, overall populations are low. There are approximately 120 to 200 deer in the Temblor Range from McKittrick Summit south to the Bitter Creek area. The Caliente Range also provides yearlong habitat for resident deer. It is believed that the relatively low density of deer in these areas is a function of limited browse and fawning cover. Browse conditions are unsatisfactory throughout the area.



UPLAND GAME HABITAT AREA

NATIONAL COOPERATIVE LAND AND WILDLIFE MANAGEMENT AREAS

MAP 3-3

MANAGEMENT AREA 6: VENTURA

CULTURAL RESOURCES

No National Register quality sites are recorded on public land in the MA. At present no known sites occur on public land in the MA.

LIVESTOCK GRAZING

The one grazing lease in this MA is a public land parcel used season long in conjunction with adjoining private land. No other public land areas have been identified as suitable for grazing within this MA.

MINERALS

There is one small KGS in the Ventura MA (Sespe). Public land (2,500 acres) and split estate (9,700 acres) represent about 14,400 acres or 1% of the total MA. Under present management 60% of this MA is under lease, representing annual rental payments of $8,220. All of this MA is considered prospectively valuable for oil and gas by the U.S. Geological Survey. Annual production from federal oil and gas leases in this MA is approximately 1.2 million barrels, or 19% of total production. An average of one well per year is drilled and less than one well per year is abandoned. Geophysical exploration is equally infrequent at less than one mile per year. Legal access is the main barrier to development of the mineral resources in this MA.

There are 360 mining claims recorded with the Bureau in this MA; however, all of them are on the national forest. All land not previously withdrawn is open to mineral entry in this MA.

All of this MA is open to geothermal exploration and solid mineral leasing and mineral material prospecting and permitting. Geothermal resources have been identified on national forest land at Wheeler Springs and Sespe Hot Springs; none have been found on public land administered by the BLM. No mineral material resources have been identifed on public land. No KLAs have been designated in this MA; however, phospate prospecting permit applications were filed on 6,900 acres of national forest land near Pine Mountain.

REALTY

A very small proportion of the total surface acreage is in this MA. There are approximately 25 remote, scattered parcels averaging 40 to 320 acres in size. Oil and gas leases exist on some of these parcels. Many seem to be suitable for disposal by public sale. There has been some public interest in acquiring this public land for avocado production, due to the area's mild climate. Other than these activities, there seems to be little interest in these parcels.

RECREATION

This MA receives about 1,000 visitor hours of use per year (hunting, hiking, camping, and ORVs). Many of the scattered and isolated parcels of public land contain no vehicle routes or legal access. Few ORV routes are in evidence. Most vehicle routes are 2x4/4x4 roads and are located in steep terrain.

SOILS

Soils consist primarily of shallow to moderately deep, loamy soils formed from sandstones and shales. Slopes are generally steep. The erosion hazard is high if the plant cover is removed and/or if the soil is compacted.

WATER RESOURCES

The MA falls within the Santa Maria River Subbasin of the Central Coastal Hydrologic Basin and the Fillmore and Hungry Valley Subbasins of the Santa Clara - Calleguas Hydrologic Basin (State Water Resources Control Board, 1975).

Very little hydrologic data is available for the area. Streams and springs on public land flow intermittently. Drainages are steep and are covered with chaparral. Removal of vegetation due to mineral development activities and livestock grazing are causing accelerated erosion in some areas.

Consumptive water uses consist primarily of livestock and wildlife watering. Important nonconsumptive uses include maintenance of aquatic and wildlife habitats, riparian vegetation maintenance, aesthetic and visual resource maintenance, and recreation use. These uses require that natural flows and good water quality be maintained.

WILDLIFE

Specific wildlife inventory data in the MA are lacking. Public land parcels are small, isolated, and scattered. California condors use the MA, but it is likely that they use Forest Service and private land almost exclusively.

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

Chapter 4

Environmental Consequences

INTRODUCTION

This chapter provides the scientific and analytic basis for the selection of the Proposed Action. It discusses the significant impacts that are anticipated to result from implementation of the Proposed Action and each of the alternatives. Both the beneficial and adverse impacts affecting the environmental components, as discussed in Chapter 3, will be documented. This chapter also includes: mitigating measures (not included under Standard Operating Procedures in Chapter 2) needed to enhance beneficial impacts or lessen adverse impacts; unavoidable adverse impacts which cannot be mitigated; the relationship between short-term use and enhancement of long-term productivity; and irreversible or irretrievable commitment of resources.

Impacts are defined as the difference between conditions with the action and conditions which would prevail at the same time with the Present Management (No Action) Alternative.

Impacts - Alternative Conditions minus(-)
Continue Present Management Conditions

Knowledge of the area and professional judgement, based on observation and analysis of similar conditions and responses in similar areas, have been used to infer environmental impacts where data are limited.

The analysis of alternatives is organized by issue for each Management Area and is based on the following assumptions:

- Near-normal annual precipitation
- Five-year implementation (1985 through 1990)
- Funds and personnel available for implementation
- Impacts will be monitored and adjusted as necessary
- Minor adjustments in management may occur
- Short term refers to five years, long term twenty years
- Baseline data accurate
- Economic impacts based on 1983 prices
- Environmental analysis completed before starting any project

MANAGEMENT AREA 1: COAST

ALTERNATIVE I: EMPHASIZE PROTECTION

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - Loss of potential revenue from disposal.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - No impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - Although livestock numbers remain constant, greater utilization of individual forage plants will occur during poor forage years than in good forage years, but this depends largely on how the adjoining private land is managed (especially C category allotments).

Allotment 0060 will receive the most protection from heavy grazing of key browse plants during poor forage years. However, more forage will be left unused on a good forage year for this allotment under this alternative than the other alternatives. This impact will be further offset by prescribed burning.

Prescribed burning of 800 acres in allotment 0060 will temporarily remove ungrazable vegetation (chaparral) which will in turn be replaced by approximately 133 AUMs ($200 potential revenue to public) of grazable forage on good forage years for several years. The grazable forage will be replaced again by chaparral in approximately 5 years unless maintained. Soil erosion will temporarily increase until the new grazable forage starts to grow.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Minor decrease in accelerated soil erosion over Alternatives II, III, and IV due to a decrease in forage utilization by livestock grazing. Reduction in stocking rates of more than 20% from current levels will improve water quality by reducing undesirable bacteria, nutrients and higher temperature caused by livestock use and will improve slope and channel stability due to a decrease in trampling and an increase in the amount of ground cover. Development of Best Management Practices for erosion and water quality protection will provide site specific recommendations for rehabilitation in existing problem areas.

Vegetation manipulation on 800 acres will remove vegetation cover which will cause a temporary increase in surface erosion. Larger, shrubby forms of vegetation which will be removed contribute to slope stability by binding the soil together with their root mats. On especially unstable soil, the incidence of landslides and dry ravel could increase when that root strength is lost. An additional concern exists in areas which have soils that form water repellent layers upon burning. Water repellency causes increased surface runoff and contributes to surface erosion (DeBano et al., 1979). Vegetation manipulation results in a short-term increase in water yield in areas where annual precipitation exceeds 18 inches (Hibbert, 1983). This may be beneficial if water is most needed during the time when the increase in flow occurs.

Wildlife - The mosaic vegetation pattern resulting from vegetation manipulation (prescribed burning) will provide more of an edge effect for wildlife and may cause a change in species composition.

MINERALS

Cultural and Paleontology Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas - No impacts since no Special Category Areas are identified in this MA.
2) Locatable Minerals - No impacts. This MA remains open to mineral entry.
3)Other Leasable and Saleable Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soil and Water Resources - Same as Alternative IV since no Special Category Areas are identified in this MA.

Wildlife - No known impacts, since no Special Category Areas are identified in this MA.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Will limit ORV use to 100 miles of existing roads, ways and trails. Cross-country ORV use, hiking, camping, and horseback riding will be restricted to existing routes in the vicinity of the Rinconada Mine.

Soils and Water Resources - Minor soil compaction and sheet erosion will occur from the use of existing roads, ways, and trails. Water quality will be degraded by sediment resulting from use of the vehicle routes.

Wildlife - No known impacts.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - 1) Threatened and Endangered Species - No known impacts.
2) Upland Game - Spraying restrictions around the existing guzzlers will benefit these species by preventing contamination of the available water supply. Adequate food during the critical nesting period of upland game will be provided by prohibiting spraying from April through June.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -

1) Oil and Gas

a) Exploration - No impacts since exploration activities normally do not require construction activities.

b) Pre/Post-leasing - Leases and permits may contain special stipulations which will restrict development (such as no surface occupancy). Roads, pipelines, sumps, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 30% (32,010 acres or 37% of the public land in this MA). There is no impact on rental since leases will be let.

2) Locatable Minerals - There will be no impacts on mining activities, but construction activities may be determined to be unnecessary or undue and could possibly require the relocation of any facilities, roads, or structures to other less impacted locations.

3) Other Leasable and Saleable Minerals - There will be no impacts to mining activities; however, no construction activities will be allowed on 32,010 acres of slopes greater than 30% or on highly erosive soils.

Realty - May require re-routing or rejection of some land use applications based on slope, soil types, or proximity to reservoirs.

Recreation - Exclusion of 32,010 acres from recreational routes and/or facility construction due to slopes greater than 30%.

Soils and Water Resources - This alternative provides the best protection for water and resources. Protective measures included in this alternative will reduce sheet and gully erosion caused by soil disturbance. This will result in less sedimentation of water resources and improved water quality. Protection of water resources from overuse will result in further improvements in water quality. Eliminating construction activities in watershed tributaries to Nacimento and Santa Margarita Reservoirs significantly reduces potential for sediment delivery from public land.

Wildlife - Reduced erosion and fencing water sources will result in improved browse conditions. More cover for upland game will be provided especially around springs.

ALTERNATIVE IA: NO GRAZING

Cultural and Paleontological Resources - Adverse impacts due to trampling, trampling related activities, and midden contamination will be eliminated.

No impacts to paleontological resources.

Livestock Grazing - This alternative will result in the loss of 1,275 AUMs ($1,800 potential revenue loss to public and $11,300 necessary to graze same AUM level on private land). "The mechanical action of animals in loosening seed carrying burs, awned seeds, and the like in their hair, in distribution of hard-coated seeds through the feces, and loosening bulbs, corms, and bits of rhizome that they may be transported elsewhere is probably of unsuspected importance. There are instances in which total protection of range from livestock has failed to result in the expected revival of the vegetation, presumably because of the lack of animal acting in aiding reproduction... It is often felt by stockmen that ungrazed plants are not so healthy and vigorous as lightly grazed plants, and research seems to indicate that properly grazed plants are as productive as or more productive than ungrazed" (Stoddard and Smith, 1955). Besides the impact of stagnated perennial plant communities in the long-run, there will be significant short-term impact from the construction of several miles of fence to keep livestock grazing adjacent private land from wandering onto public land. Also fire hazard will increase from a buildup of old vegetation.

Minerals - No impacts.

Realty - No known impacts.

Recreation - 8,910 acres opened to all recreational uses due to lack of fences.

Soils and Water Resources - The adverse impacts on water quality and soil stability caused by grazing and associated range improvements will no longer occur. Conditions in formerly grazed areas will gradually improve.

Wildlife - No known impacts.

MANAGEMENT AREA 1: COAST

ALTERNATIVE II: COMBINED EMPHASIS

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas
   a) Exploration - Approximately 16,410 acres of public land will be removed from exploration activities, about 19% of the total public land available in the MA.
   b) Pre/Post-Leasing - No impacts since minerals are reserved in any disposal.
2) Locatable Minerals - No long term impacts since minerals reserved in any disposal.
3) Other Leasable and Saleable Minerals - No impacts since minerals reserved in any disposal.

Realty - Sale of public land will increase property tax revenues to local governments and reduce potential management costs to the Bureau. Sales will bring an economic return to the public of approximately $1,640,000 at fair market value (estimated at $100/acres).

Recreation - Potential loss of 16,410 acres to recreational use.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Adverse impacts to cultural resource sites result from livestock concentrations in range improvement areas result in which trampling and trampling-related erosion occur. Livestock rubbing against standing historic structures and livestock concentrations at prehistoric cultural resource sites may result in the deterioration of standing structures and features, breakage of surface artifacts, vertical and horizontal mixing of midden constituents, and subtle changes in the depositional matrices of subsurface sites (e.g., pollen count, carbon contamination, and pH level).

Prescribed burning could adversely affect historic and prehistoric sites. If historic wooden structures are within the burn area, they could be destroyed. Prehistoric sites with midden could also be adversely affected as the soil chemistry and organic matter used in radiocarbon dating can be altered by the effects of fire. Other potential adverse effects of prescribed burning on cultural resource sites are: line construction, chaining, and brush crushing.

No known impacts to paleontological resources.

Livestock Grazing - Although livestock numbers remain constant, greater utilization of individual forage plants will occur during poor forage years than in the good forage years, but this depends largely on how the adjoining private land is managed (especially C category allotments).

Allotment 0060 will receive a moderate degree of protection from heavy grazing of key browse plants during poor forage years under this alternative as compared to Alternatives III and IV. However, more forage will be left on a good forage year for this allotment under this alternative than under Alternatives III and IV. This impact will be further offset by prescribed burning.

Prescribed burning of 1,200 acres of chaparral in allotment 0060 will temporarily remove ungrazable vegetation which will in turn be replaced by approximately 200 AUMs ($280 potential revenue to public) of grazable forage on good forage years for several years. The grazable forage will be replaced again by chaparral in approximately 5 years unless maintained. Soil erosion will temporarily increase until the new grazable forage starts to grow.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Forage allocation will be the same as Alternative I. There is a greater potential for increased accelerated soil erosion from vegetation manipulation than Alternative I since an additional 400 acres will be burned.

The extent of impacts will depend on the stability and gradient of the slopes. Use by livestock on a 75% slope or greater will cause accelerated erosion.

Wildlife - Same as Alternative I. In addition, there may be minor localized benefit to wildlife living near the proposed reservoir due to increased water availability.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas - No impacts since there are no Special Category Areas are identified in this MA.
2) Locatable Minerals - No impacts. This MA remains open to mineral entry.
3) Other Leasable and Saleable Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative IV, since no Special Category Areas are identified in this MA.

Wildlife - No known impacts since no Special Category Areas are identifed in this MA.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Will limit ORVs to 100 miles of existing roads, ways and trails. All other recreational use allowed in the vicinity of the Rinconada Mine.

Soils and Water Resources - Minor soil compaction and sheet erosion will occur from the use of existing vehicle routes. Water quality will be degraded by sediment resulting from use of the vehicle routes.

Wildlife - No known impacts.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No known impacts.

Wildlife - 1) Threatened and Endangered Species - Meets minimum legal requirements for protection of endangered species habitat.
2) Upland Game - Same as Alternative I.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - There will be no impacts to forage allocations under this alternative. The restriction of construction on slopes less than 50% will prohibit construction of a reservoir proposed for allotment 0060. The reservoir is needed to improve livestock distribution so that livestock use can be shifted from areas of heavy use to areas with less grazing pressure. This improved distribution should improve watershed protection as well.

Minerals -
1) Oil and Gas
a) Exploration - No impacts since exploration activities normally do not require contruction.
b) Pre/Post-Leasing - Leases and permits may contain special stipulations which may restrict development (such as no surface occupancy). Roads, sumps, pipelines, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 50% (26,340 acres or 31% of the public land in this MA). There will be no impact on rental since leases will be let.
2) Locatable Minerals - There will be no impacts on mining activity; however, construction activities may be determined to be undue or unnecessary and could possibly require the operator to relocate the construction activities to an area less sensitive to watershed impacts. The locatable mineral potential of this MA is relatively low; therefore, no impacts to locatable minerals will occur.
3) Other Leasable and Saleable Minerals - There will be no impacts to mining these resources; however, no construction activities will be allowed on the 26,340 acres of highly erosive soils or on slopes greater than 50%. The leasable mineral and saleable mineral potential of this MA is relatively low; therefore, there will be no impacts to these resources.

Realty - May require re-routing or rejection of some land use applications based on slope, soil types, or proximity to reservoirs.

Recreation - Exclusion of 26,340 acres from recreational routes and/or facility construction due to slopes greater than 50%.

Soils and Water Resources - Same as Alternative I except, construction activities on slopes between 30% and 50% (5,670 acres) will cause accelerated erosion in the localized area around the activity. Use of secondary (developed) sources will cause minor soil compaction near the source.

Wildlife - Same as Alternative I.

ATERNATIVE III: EMPHASIZE PRODUCTION

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas
a) Exploration - Approximately 24,320 acres of public land will be removed from exploration activities, about 28% of the total public land available in the MA.
b) Pre/Post-Leasing - No impacts since minerals are reserve in any disposal.
2) Locatable Minerals - No long term impacts since minerals reserved in any disposal.
3) Other Leasable and Saleable Minerals - No impacts since minerals reserved in any disposal.

Realty - Sale of public land will increase property tax revenues to local governments and reduce potential management costs to the Bureau. Sales will bring an economic return to the public of approximately $2,430,000 at fair market value (estimated at $100/acre).

Recreation - Potential loss of 24,320 acres to recreational use.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Same as Alternative II.

Livestock Grazing - Although livestock numbers remain constant, greater utilization of individual forage plants will occur during poor forage years than in good forage years, but this depends largely on how the adjoining private land is managed (especially C Category allotments).

Allotment 0060 will receive less protection from heavy grazing of key browse plants during poor forage years under this alternative. However, from a forage production standpoint, the most efficient use of forage production will be made under this alternative on the average. This impact will be further offset by prescribed burning.

Prescribed burning of 1,572 acres in allotment 0060 will result in approximately 262 AUMs ($400 potential revenue to public) of grazable forage on good forage years for several years, The grazable forage will be replaced by chaparral in approximately 5 years unless maintained. Soil erosion will temporarily increase until the new grazable forage starts to grow.

An additional 5,560 acres of public land that is potentially suitable for livestock grazing will be prescribed burned and offered for new grazing allotments. The prescribed burn will temporarily remove ungrazable vegetation which will in turn be replaced by approximately 556 AUMs ($800 potential revenue to public) of grazable forage on good production years for several years. The grazable forage will be replaced again by chaparral in spproximately 5 years unless maintained. Soil erosion will temporarily increase until the new grazable forage starts growth.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Forage allocation will be the same as Alternative I, except greater impacts to soil and water resources will occur on allotment 0060 (e.g., accelerated erosion). Offering all suitable areas for new allotments will cause soil and water resource impacts in these areas. The extent of impacts will depend on the extent of grazing that occurs.

Vegetation manipulation will cause greater impacts than under Alternatives I and II since additional acres will be burned. The extent of impacts will depend on the stability and gradient of the slopes.

Development of springs and construction of reservoirs increases the amount of water available for livestock use and can ease grazing pressure on natural sources by luring cattle from them. Spring developments and reservoirs are generally beneficial to water and soil resources as long as the natural spring source is protected from the effects of livestock congregating around the development. Use by livestock on slopes greater than 50% will cause accelerated soil erosion.

Wildlife - Same as Alternative II.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -

1) Oil and Gas - No impacts since no Special Category Areas are identified in this MA.

2) Locatable Minerals - No impacts. This MA remains open to mineral entry.

3) Other Leasable and Saleable Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative IV since no Special Category Areas are identified in this MA.

Wildlife - No known impacts since no Special Category Areas are identified in this MA.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No impacts.

Recreation - 45,490 acres will be open for recreational use. Steep terrain and dense vegetation will limit ORV use and additional proliferation of vehicle routes. Recreational uses will be allowed in the vicinity of the Rinconada Mine.

Soils and Water Resources - Designating the MA open to ORVs will potentially increase use. Soil compaction, erosion, and sedimentation will be greater than in Alternatives I and II.

Wildlife - No known impacts.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - Same as Alternative II.

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -

1) Oil and Gas
   - a) Exploration - No impacts since exploration activities normally do not require construction.
   - b) Pre/Post-Leasing-Leases and permits may contain special stipulations which may restrict development (such as no surface occupancy). Roads, sumps, pipelines, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 70% (20,860 acres or 24% of the public land in this MA). There will be no impact on rental since leases will be let.
2) Locatable Minerals - There will be no impacts on mining activity; however, construction activities may be determined to be undue or unnecessary and could possibly require the operator to relocate the construction activities to an area less sensitive to watershed impacts. The locatable mineral potential of this MA is relatively low; therefore, no impacts to locatable minerals will occur.

3) Other Leasable and Saleable Minerals - There will be no impacts to mining these resources; however, no construction activities will be allowed on the 20,860 acres of highly erosive soils or on slopes greater than 70%. The leasable mineral and saleable mineral potential of this MA is relatively low; therefore, there will be no impacts to these resources.

Realty - May require re-routing or rejection of some land use applications based on slope, soil types, or proximity to reservoirs.

Recreation - Exclusion of 20,860 acres from recreational vehicle routes and/or facility construction due to slopes greater than 70%.

Soils and Water Resources - Construction activities on slopes between 50% and 70% (5,490 acres) could cause accelerated erosion depending on soil erodibility, care taken by operators during construction, and climatic conditions following construction. Use of developed water sources will cause minor soil compaction and erosion near the source. Use of natural sources, in addition to developed sources, will cause disturbance resulting in soil compaction, sheet and gully erosion and poorer water quality. Construction within the watershed of tributaries to Snake Creek may ultimately deliver greater amounts of sediment to Nacimiento Reservoir.

Wildlife - Same as Alternative I.

MANAGEMENT AREA 1: COAST

ALTERNATIVE IV: PRESENT MANAGEMENT

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - Loss of potential revenue from no disposal.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - No impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Same as Alternative II.

Livestock Grazing - Same as Alternative III.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Forage allocation for grazing use is causing soil compaction and accelerated erosion in the MA. Stability and water quality of water sources is being adversely impacted by livestock concentrating around water sources. Continuation of present practices will allow continued loss of soil and decline in water quality. Impacts from range improvements for the area are the same as Alternative III.

Wildlife - Same as Alternative II.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No known impacts.

Realty - No known impacts.

Recreation - There are no known conflicts between recreation and mining in the area. Most of the public land in the MA is scattered parcels with steep terrain and chaparral surrounded by private property thus making vehicle travel almost impossible. A problem exists in the vicinity of the Rinconada Mine where public access is in demand to the neighboring U.S. Forest Service Santa Lucia Wilderness Area. The owners of the mine are concerned about vandalism and public use in and around their property.

Soils and Water Resources - 1) Oil and Gas - Under present management 26% of public land in this MA is under lease. Overall impact depends on the extent of development that occurs; however, the following types of impacts are known to occur in presently developed areas.

The development of oil and gas resources involves building roads, drill pads, drilling and operating wells, and land reclamation. Roads and drill pads create an impermeable surface which allows runoff to concentrate and increase, thus increasing downslope erosion. Sediment from road surfaces, ruts, and ditches flows into drainages during rainstorms and degrades water quality.

Barring unexpected accidents, modern methods for drilling wells generally include adequate measures for protecting groundwater quality. Occasionally during well testing, oil will be allowed to flow into an unlined reserve pit which holds drilling fluids. This creates a potential for groundwater pollution.

The Notice to Lessees and Operators of Federal and Indian Oil and Gas Leases (NTL-2B) states that produced water must be disposed of by: 1) injection into subsurface; 2) lined pits; or 3) by other acceptable methods. Reinjection into the subsurface and the use of lined pits are the least damaging methods of disposing of waste water.

Rehabilitation measures such as recontouring the land and revegetation help to minimize long-term adverse impacts.

2) Locatable, Other Leasable, and Saleable Minerals - Under present management 100 acres of public land in this MA are experiencing or have experienced major surface disturbing mining operations. The extent of impact is directly related to the degree of mineral development; however, the following types of impacts will be expected in mined area.

Mining can involve building roads, drilling or dozing holes in the earth, constructing drill pads, extracting and processing minerals, disposing of wastes, and reclamation efforts. Building roads can have a greater impact on water and soil resources than the actual mine does. Roads create an impermeable surface which allows runoff to concentrate and increase thus increasing erosion below the road. Interruption of subsurface flow patterns can cause mass failures of road and fill slopes. Sediment from road surfaces and from road cuts, fills, and ditches flows into drainages during rainstorms and degrades water quality.

Road construction and mine development involve removal of vegetation. Removal of vegetation reduces evapotranspiration thus increasing runoff and erosion. Mining spoils piles have reduced infiltration rates which, in combination with reduced hydraulic resistance of the surface, contribute to increased overland flow and greater erosion.

Mining increases the concentration of salts, heavy metals, and sediments in runoff water. Often the chemistry of mine spoils is such that overland flow and streamflow below the spoils is at saturation levels with saline, alkaline, acid, and heavy metal cations.

Mining can affect groundwater resources as well. Mining can physically disrupt aquifers supplying recharge to streams. Mining can cause changes in groundwater flow patterns since material which is backfilled into a disrupted aquifer usually has different characteristics than the original aquifer. Putting a pit or shaft into a aquifer can cause a pressure sink which will lower the water table. These effects are detected further and further from the mine, over time often causing significant effects such as the drying up of springs. Effects on the aquifer that is mined can affect other aquifers as well since water can often move from one aquifer to another.

Groundwater quality can also be affected. Mineral surfaces exposed during mining contribute increased dissolved solids and trace elements to water which percolates into the groundwater supply. Water percolating downward from mine pits, shafts, and tailing impoundments is similarly affected. This acid mine drainage is caused by increased availability of water and oxygen to acid producing mineral surfaces. It is transported by "weeping", the constant dripping of poor quality water into the groundwater supply. Acid mine drainage is also transported by "flushing" in which water flows through the mine carrying acid salts formed underground into surface and subsurface water systems (U.S. Forest Service, 1979 and 1980).

Rehabilitation efforts including recontouring the land to match the original topography, replacing stockpiled topsoil, revegetation and mulching can minimize long-term adverse impacts by preventing further impacts after a mine is abandoned.

Wildlife - Under present management, impacts to endangered species from proposed wells and other past oil and gas lease operations have not occurred. No proposed actions have resulted in formal consultation with the U.S. Fish and Wildlife Service.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - This alternative will allow continued hunter, hiker, and ORV use on accessible portions of the 45,490 acres in this MA.

Soils and Water Resources - Less use may occur than under Alternative III, however, the potential for moderate erosion and sedimentation from dispersed use will exist.

Wildlife - No known impacts.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - 1) Threatened and Endangered Spceis - Same as Alternative II.
2) Upland Game - A decrease in food supply for young which will, in turn, affect the healthiness of the young if spraying is permitted near guzzlers or during the months of April through June.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - Presently all operators comply with site specific mitigating measures prescribed on a case-by case basis.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Existing specifications for road construction under present management help prevent erosion and resultant water quality degradation. Natural water resources will continue to be impacted by livestock grazing, off-road vehicles, and mining. Development and construction activities on steep slopes will continue to cause sheet and gully erosion.

Wildlife - No known impacts.

MANAGEMENT AREA 2: CUYAMA

ALTERNATIVE I: EMPHASIZE PROTECTION

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - Loss of potential revenue from disposal.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - No impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - Although livestock numbers will remain constant, greater utilization of individual forage plants will occur during poor forage years than in the good forage years, however, impacts from livestock grazing will be minimal.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Slight decrease in soil erosion due to decreased AUMs for allotment 0050. Minor soil compaction and erosion will occur due to livestock grazing.

Wildlife - No known impacts.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - 40 acres or 0.2% of the available public land open for mining location, mineral leasing and sale in this MA will be closed to protect cultural resources.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative IV since no Special Category Areas are identified in this MA.

Wildlife - Approximately 2,000 acres of BNLL and SJKF habitat will be preserved in it's current condition. T and E species will not be jeopardized and positive conservation measures will be realized.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Loss of ORV access (open to all other forms of recreation) on 2,040 acres of public land in the Ballinger Canyon area. The remaining 40 miles of ORV routes will be limited to those currently existing in the remainder of the MA.

Soils and Water Resources - Closing public land in Ballinger Canyon to ORV use will allow recovery of vegetation and soil resources from overuse. Limiting ORV use to existing roads, ways and trails in the remainder of the MA will cause minor soil compaction and sheet erosion. Other recreation uses will have a negligible effect.

Wildlife - The population of apparent hybrids between blunt nosed leopard lizards and long nosed leopard lizards found in Ballinger Canyon will be protected.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - 1) Threatened and Endangered Species - Maintenance of existing food supply for BNLL will be ensured by pesticide and herbicide restrictions.

2) Upland Game - Spraying restrictions around the existing guzzlers will benefit these species by preventing contaminiation of the available water supply. Adequate food during the critical nesting period of upland game will be provided by prohibiting spraying from April through June.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals
1) Oil and Gas
a) Exploration - No impacts since exploration activities normally do not require construction activities.
b) Pre/Post-leasing - Leases and permits may contain special stipulations which will restrict development (such as no surface occupancy). Roads, pipelines, sumps, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 30% (2,070 acres or 9% of the public land in this MA). There is no impact on rental since leases will be let.
2) Locatable Minerals - There will be no impacts on mining activities, but construction activities may be determined to be unnecessary or undue and could possibly require the relocation of any facilities, roads, or structures to other less sensitive locations.
3) Other Leasable and Saleable Minerals - There will be no impacts to mining activities, but no construction activities will be allowed on 2,070 acres of highly erosive soils or on slopes greater than 30%.

Realty - May require re-routing or rejection of some land use applications due to slope and/or soil types.

Recreation - Exclusion of 2,070 acres from recreational routes and/or facility construction due to slopes greater than 30%.

Soils and Water Resources - This alternative provides the best protection for water and soil resources. Protective measures will reduce sheet and gully erosion caused by soil disturbance. This will result in less sedimentation of water resources and improved water quality. Protection of water resources from overuse will result in further improvements in water quality. Some minor, short-term soil erosion will occur due to fencing activities.

Wildlife - Reduced erosion and fencing water sources will result in improved browse conditions, More cover for upland game will be provided especially around springs.

MANAGEMENT AREA 2: CUYAMA

ALTERNATIVE IA: NO GRAZING

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Adverse impacts from trampling, trampling related activities, and midden contamination will be eliminated. No impacts to paleontological resources.

Livestock Grazing - This alternative will result in the loss of 178 AUMs ($200 potential revenue loss to public and $1,600 necessary to graze same AUM level on private land). "The mechanical action of animals in loosening seed carrying burs, awned seeds, and the like in their hair, in distribution of hard-coated seeds through the feces, and loosening bulbs, corms, and bits of rhizome that they may be transported elsewhere is probably of unsuspected importance. There are instances in which total protection of range from livestock has failed to result in the expected revival of the vegetation, presumably because of the lack of animal acting in aiding reproduction... It is often felt by stockmen that ungrazed plants are not so healthy and vigorous as lightly grazed plants, and research seems to indicate that properly grazed plants are as productive as or more productive than ungrazed" (Stoddard and Smith, 1955). Besides the impact of stagnated perennial plant communities in the long-run, there will be significant short-term impact from the construction of several miles of fence to keep livestock grazing adjacent private land from wandering onto public land. Also fire hazard will increase from a buildup of old vegetation.

Minerals - No impacts.

Realty - No known impacts.

Recreation - 2,000 acres open to all recreational uses, due to the lack of fences.

Soils and Water Resources - The adverse impacts on water quality and soil stability caused by grazing and associated range improvements will no longer occur under this alternative. Conditions will gradually improve.

Wildlife - No known impacts.

MANAGEMENT AREA 2: CUYAMA

ALTERNATIVE II: COMBINED EMPHASIS

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and gas
   a) Exploration - Approximately 270 acres of public land will be removed from exploration activities, about 1% of the total public land available in the MA.
   b) Pre/Post-Leasing - No impacts since minerals are reserve in any disposal.
2) Locatable Minerals - No long term impacts since minerals reserved in any disposal.
3) Other Leasable and Saleable Minerals - No impacts since minerals reserved in any disposal.

Realty - Sale of public land will increase property tax revenues to local governments and reduce potential management costs to the Bureau. Sales will bring an economic return to the public of approximately $54,000 at fair market value (estimated at $200/acre).

Recreation - Potential loss of 270 acres of recreational use.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Adverse impacts to cultural resource sites result from livestock concentrations in range improvement areas result in which trampling and trampling-related erosion occur. Livestock rubbing against standing historic structures and livestock concentrations at prehistoric cultural resource sites may result in the deterioration of standing structures and features, breakage of surface artifacts, vertical and horizontal mixing of midden constituents, and subtle changes in the despositional matrices of subsurface sites (e.g., pollen count, carbon contamination, and pH level).

No known impacts to paleontological resources.

Livestock Grazing - Same as Alternative I.

Minerals - No impacts.

ALTERNATIVE IA: NO GRAZING

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Adverse impacts from trampling, trampling related activities, and midden contamination will be eliminated. No impacts to paleontological resources.

Livestock Grazing - This alternative will result in the loss of 178 AUMs ($200 potential revenue loss to public and $1,600 necessary to graze same AUM level on private land). "The mechanical action of animals in loosening seed carrying burs, awned seeds, and the like in their hair, in distribution of hard-coated seeds through the feces, and loosening bulbs, corms, and bits of rhizome that they may be transported elsewhere is probably of unsuspected importance. There are instances in which total protection of range from livestock has failed to result in the expected revival of the vegetation, presumably because of the lack of animal acting in aiding reproduction... It is often felt by stockmen that ungrazed plants are not so healthy and vigorous as lightly grazed plants, and research seems to indicate that properly grazed plants are as productive as or more productive than ungrazed" (Stoddard and Smith, 1955). Besides the impact of stagnated perennial plant communities in the long-run, there will be significant short-term impact from the construction of several miles of fence to keep livestock grazing adjacent private land from wandering onto public land. Also fire hazard will increase from a buildup of old vegetation.

Minerals - No impacts.

Realty - No known impacts.

Recreation - 2,000 acres open to all recreational uses, due to the lack of fences.

Soils and Water Resources - The adverse impacts on water quality and soil stability caused by grazing and associated range improvements will no longer occur under this alternative. Conditions will gradually improve.

Wildlife - No known impacts.

MANAGEMENT AREA 2: CUYAMA

ALTERNATIVE II: COMBINED EMPHASIS

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and gas
a) Exploration - Approximately 270 acres of public land will be removed from exploration activities, about 1% of the total public land available in the MA.
b) Pre/Post-Leasing - No impacts since minerals are reserve in any disposal.
2) Locatable Minerals - No long term impacts since minerals reserved in any disposal.
3) Other Leasable and Saleable Minerals - No impacts since minerals reserved in any disposal.

Realty - Sale of public land will increase property tax revenues to local governments and reduce potential management costs to the Bureau. Sales will bring an economic return to the public of approximately $54,000 at fair market value (estimated at $200/acre).

Recreation - Potential loss of 270 acres of recreational use.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Adverse impacts to cultural resource sites result from livestock concentrations in range improvement areas result in which trampling and trampling-related erosion occur. Livestock rubbing against standing historic structures and livestock concentrations at prehistoric cultural resource sites may result in the deterioration of standing structures and features, breakage of surface artifacts, vertical and horizontal mixing of midden constituents, and subtle changes in the despositional matrices of subsurface sites (e.g., pollen count, carbon contamination, and pH level).

No known impacts to paleontological resources.

Livestock Grazing - Same as Alternative I.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative I.

Wildlife - No known impacts.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No known impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative IV since no Special Category Areas are identified in this MA.

Wildlife - No known impacts.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Designated vehicle routes will eliminate any cross-country ORV travel on 7,220 acres and will restrict vehicle dependent hunting and camping activities to existing routes.

Soils and Water Resources - Same as Alternative I except, impacts to soil resources will continue in Ballinger Canyon.

Wildlife - Will protect hybrid lizards in Ballinger Canyon.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - 1) Threatened and Endangered Species - Meets the minimum legal requirements for protection of endangered species habitat.
2) Upland Game - Same as Alternative I.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas
a) Exploration - No impacts since exploration activities normally do not require construction.
b) Pre/Post-Leasing - Leases and permits may contain special stipulations which may restrict development (such as no surface occupancy). Roads, sumps, pipelines, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 50% (1,000 acres or 4% of the public land in this MA). There will be no impact on rental since leases will be let.
2) Locatable Minerals - There will be no impacts on mining activity; however, construction activities may be determined to be undue or unnecessary and could possibly require the operator to relocate the construction activities to an area less sensitive to watershed impacts. The locatable mineral potential of this MA is relatively low; therefore, no impacts to locatable minerals will occur.
3) Other Leasable and Saleable Minerals - There will be no impacts to mining these resources; however, no construction activities will be allowed on the 1,000 acres of highly erosive soils or on slopes greater than 50%. The leasable mineral potential of this MA is relatively low; therefore, there will be no impacts to this resource.

Realty - May require re-routing or rejection of some land use applications due to slope and/or soil types.

Recreation - Exclusion of 1,000 acres from recreational routes and/or facility construction due to slopes greater than 50%.

Soils and Water Resources - Same as Alternative I except, minor, short-term soil erosion due to fencing activities. Construction activities on slopes between 30% and 50% (1,070 acres) will cause accelerated erosion in the localized area around the activity. Use of secondary (developed) sources will cause minor soil compaction near the source.

Wildlife - Same as Alternative I.

MANAGEMENT AREA 2: CUYAMA

ALTERNATIVE III: EMPHASIZE PRODUCTION

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas
a) Exploration - Approximately 1,720 acres of public land will be removed from exploration activities, about 8% of the total public land available in the MA.
b) Pre/Post-Leasing - No impacts since minerals are reserve in any disposal.
2) Locatable Minerals - No long term impacts since minerals reserved in any disposal.
3) Other Leasable and Saleable Minerals - No impacts since minerals reserved in any disposal.

Realty - Sale of public land will increase property tax revenues to local governments and reduce potential management costs to the Bureau. Sales will bring an economic return to the public of approximately $340,000 at fair market value (estimated at $200/acre).

Recreation - Potential loss of 1,720 acres to recreational use.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Same as Alternative II.

Livestock Grazing - Same as Alternative I.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative I.

Wildlife - No known impacts.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative IV since no Special Category Areas are identified in this MA.

Wildlife - No known impacts.

RECREATION USE

Cultural and Paleontological Resources - Potential loss of significant cultural resources from ORV use and casual collecting.

No known impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Will leave approximately 7,220 acres open for cross-country ORV travel and other vehicle dependent hunting and camping activities.

Soils and Water Resources - ORV use throughout accessible portions of the MA will cause an increase in soil compaction, sheet and rill erosion, and sedimentation in the drainages. Much of public land is surrounded by private holdings making it inaccessible. Other recreation uses will have a negiglible effect.

Wildlife - Continued existence of hybrid lizards may be jeopardized.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - Same as Alternative II.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - May require re-routing or rejection of some land use applications due to slope and/or soil types.

Recreation - Exclusion of 200 acres from recreational routes and/or facility construction due to slopes greater than 70%.

Soils and Water Resources - Construction activities on slopes between 50% and 70% (800 acres) could cause accelerated erosion depending on soil erodibility, methods used by operators during construction, and climatic conditions following construction. Use of developed water sources will cause minor soil compaction and erosion near the source. Use of natural sources, in addition to developed sources, will cause disturbance resulting in soil compaction, sheet and gully erosion, and poorer water quality.

Wildlife - Same as Alternative I.

MANAGEMENT AREA 2: CUYAMA

ALTERNATIVE IV: PRESENT MANAGEMENT

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - Loss of potential revenue from disposal.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - No impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Same as Alternative II.

Livestock Grazing - Same as Alternative I.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Allotments 0050 and 0099 do not conflict with recreation. Most recreational routes, ORV uses, and other recreational uses such as hunting that could be affected by grazing in this MA are located in and adjacent to the Cuyama riverbed (1,200 acres) where grazing does not exist.

Soils and Water Resources - Same as Alternative I.

Wildlife - No known impacts.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No known impacts.

Realty - No known impacts.

Recreation - Scattered development on 12,530 acres of oil and gas leases do not conflict with current recreational opportunities that include ORV use, hunting, and trapping.

Soils and Water Resources -

1) Oil and Gas - Under present management 57% of public land in this MA is under lease. Overall impacts depend on the extent of development that occurs; however, the following types of impacts are known to occur in presently developed areas.

The development of oil and gas resources involves building roads and drill pads, drilling and operating wells, and land reclamation. Roads and drill pads create an impermeable surface which allows runoff to concentrate and increase, thus increasing downslope erosion. Sediment from road surfaces, ruts, fills, and ditches flows into drainages during rainstorms and degrades water quality.

Barring unexpected accidents, modern methods for drilling wells generally include adequate measures for protecting groundwater quality. Occasionally during well testing, oil will be allowed to flow into an unlined reserve pit which holds drilling fluids. This creates a potential for groundwater pollution.

The Notice of Lessees and Operations of Federal and Indian Oil and Gas Leases (NTL-2B) states that produced water must be disposed of by: 1) injection into the subsurface; 2) lined pits; or 3) by other acceptable methods. Reinjection into the subsurface and the use of lined pits are the least damaging methods of disposing of waste water.

Rehabilitation measures such as recontouring the land and revegetation help to minimize long term adverse impacts.

2) Locatable, Other Leasables, and Saleable Minerals - Under present management no areas of public land in this MA are experiencing or have experienced major surface disturbing mining operations. Should this type of disturbance occur, the following types of impacts will be expected in mined areas.

Mining can involve building roads, drilling or dozing holes in the earth, constructing drill pads, extracting and processing minerals, disposing of wastes, and reclamation efforts. Building roads can have a greater impact on water and soil resources than the actual mine does. Roads create an impermeable surface which allows runoff to concentrate and increase, thus increasing erosion below the road. Interruption of subsurface flow patterns can cause mass failures of road and fill slopes. Sediment from road surfaces, and from road cuts, fills, and ditches, flows into drainages during rainstorms and degrades water quality.

Road construction and mine development involve removal of vegetation which reduces evapotranspiration, thus increasing runoff and erosion. Mining spoils piles have reduced infiltration rates which, in combination with reduced hydraulic resistance of the surface, contribute to increased overland flow and greater erosion. Mining increases the concentration of salts, heavy metals, and sediment in runoff water. Often the chemistry of mine spoils is such that overland flow and streamflow below the spoils is at saturation levels with saline, alkaline, acid, and heavy metal cations.

Mining can affect groundwater resources as well. Mining can physically disrupt aquifers supplying recharge to streams. Mining can cause changes in groundwater flow patterns since material which is backfilled into a disrupted aquifer usually has different hydraulic characteristic than the original aquifer. Putting a pit or shaft into an aquifer can cause a pressure sink which will lower the water table. These effects are detected further and further from the mine over time often causing significant effects such as the drying up of springs. Effects on the aquifer that is mined can affect other aquifers as well since water can often move from one aquifer to another.

Groundwater quality can also be affected. Mineral surfaces exposed during mining contribute increased dissolved solids and trace elements to water which percolates into the groundwater supply. Water percolating downward from mine pits, shafts, and tailing impoundments is similarly affected.

Reclamation efforts including recontouring the land to match the original topography, replacing stockpiled topsoil, revegetation and mulching can minimize long term adverse impacts by preventing further impacts after a mine is abandoned.

Wildlife - Under present management, impacts to endangered species from proposed wells and other past oil and gas lease operations have not occurred. No proposed actions have resulted in formal consultation with the U.S. Fish and Wildlife Service.

RECREATION USE

Cultural and Paleontological Resources - Same as Alternative III.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Present management will allow approximately 7,220 acres open for continued cross-country ORV travel and all vehicle dependent hunting and camping activities.

Soils and Water Resources - ORV use throughout accessible portions of the MA will cause an increase in soil compaction, sheet and rill erosion, and sedimentation in the drainages. Much of the land is surrounded by private holdings making it inaccessible. Other recreation uses will have a negligible effect.

Wildlife - Potential for increased impacts that may ultimately jeopardize hybrid lizards.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - 1) Threatened and Endangered Species - Same as Alternative II.
2) Upland Game - A decrease in food supply for young which will, in turn, affect the healthiness of the young if spraying is permitted near guzzlers or during the months of April through June.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - Presently all operators comply with site specific mitigating measures prescribed on a case-by-case basis.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Existing specifications for road construction under present management helps prevent erosion and resultant water quality degradation. Natural water resources will continue to be impacted by livestock grazing, off-road vehicles, and mining. Developments and construction activities on steep slopes will continue to cause sheet and gully erosion.

Wildlife - No known impacts.

MANAGEMENT AREA 3: POINT SAL

ALTERNATIVE I: EMPHASIZE PROTECTION

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -

1) Oil and Gas - No leasing will be permitted representing a potential loss of $50 in annual rental fees. Production potential is estimated to be speculative at best since surface rocks indicate an unfavorable hydrocarbon environment.

2) Locatable Minerals - There are no known locatable deposits at Point Sal except historic beach placers. No mining claims have been filed. Impact will be negligible.

3) Other Leasable and Saleable Minerals - There is no potential for leasable minerals in this MA; therefore, no impacts.

Due to location, accessibility, quality and quantity, sand at Point Sal is not considered saleable; therefore, no impacts.

Realty - No known impacts.

Recreation - Primitive hiking and camping opportunities in the area will be preserved.

Soils and Water Resources - No impacts.

Wildlife - There are no direct impacts under this alternative. Protection is provided from future potential impacts on brown pelicans and sea otters (T and E species), seals, sea lions, and a wide variety of shorebirds resulting from oil spills.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Loss of all recreational opportunities due to total closure of the MA.

Soils and Water Resources - Closing the MA to ORV use will help prevent soil compaction and accelerated erosion. Other recreation uses will have a negligible impact. Some minor, short-term soil erosion will occur from fence construction activities.

Wildlife - Recreational closure will limit human presence and associated disturbances to wildlife.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - Designation of Point Sal as an ACEC will ensure the protection of two archaeological sites with National Register potential.

No impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - Will ensure protection of geologic formation (ophiolite sequence).

Realty - May require re-routing or rejection of some land use applications.

Recreation - Complete loss of all recreational opportunities due to the closure of the MA.

Soils and Water Resources - Management of the area as an ACEC will provide more intensive management for existing resource values such as T and E species (plant and animal). This type of management is conducive to greater protection for soil and water resources.

Wildlife - Will ensure protection of the brown pelican (federally listed endangered species) and the southern sea otter (federally listed threatened species) as well as numerous marine mammals and birds.

MANAGEMENT AREA 3: POINT SAL

ALTERNATIVE IA: NO GRAZING

- Same as Alternative I.

MANAGEMENT AREA 3: POINT SAL

ALTERNATIVE II: COMBINED EMPHASIS

MINERALS

Cultural and Paleontological Resources - Leasing with a NSO stipulation implies approval of development off-lease which may impact significant cultural resources from indirect use of the area e.g., casual collecting of sites (refer to Point Sal EA No. CA-016-82-030).

No known impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals
1) Oil and Gas - Leasing with a NSO will cause no impacts on leasehold area. However, the impacts will be the same as Alternative III for land surrounding the leasehold area.
2) Locatable Minerals - Should interest occur, operations will be hindered by stipulations against surface disturbance. Otherwise, no impacts.
3) Other Leasable and Saleable Minerals - A NSO stipulation will preclude any development; however, since there is no development potential, no impacts are expected.

Realty - No known impacts.

Recreation - Mining may increase the potential for future conflicts with hiking and camping within the MA.

Soils and Water Resources - Minor impacts to soil and water resources will occur from the use of vehicle routes during exploration.

Wildlife- No direct impacts, but no protection against potential future impacts from oil spills, noise, increased human acitivity, etc. as a result of off-lease development.

RECREATION USE

Cultural and Paleontological Resources - Possible loss of significant cultural resources from casual collecting.

No known impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Loss of all ORV opportunities and vehicle access (that will eliminate car camping, etc.) due to vehicle closure.

Soils and Water Resources - Closing the MA to ORV use will help prevent soil compaction and accelerated erosion. Other recreation use will have a negligible impact.

Wildlife - ORV closure will reduce human presence and associated disturbances to wildlife.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - Designation of Point Sal as an ACEC will ensure the protection of two archaeological sites with National Register potential.

No impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - Will ensure protection of geologic formation (ophiolite sequence).

Realty - May require re-routing or rejection of some land use applications.

Recreation - Loss of recreational vehicle/ORV access on 0.5 miles of trail access. This, in turn, will limit vehicle related activities e.g., camping, sightseeing, etc.

Soils and Water Resources - Same as Alternative I.

Wildlife - Will ensure protection of the brown pelican (federally listed endangered species) and the southern sea otter (federally listed threatened species) as well as numerous marine mammals and birds.

ALTERNATIVE III: EMPHASIZE PRODUCTION

MINERALS

Cultural and Paleontological Resources - Significant cultural resources will be destroyed.

No known impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Same as Alternative II.

Soils and Water Resources - Exclusion of oil and gas exploration and development will protect soil and water resources from surface disturbance. No impact expected from other mineral related activities since potential for development is low to zero.

Wildlife - Same as Alternative II.

RECREATION USE

Cultural and Paleontological Resources - Same as Alternative II.

No known impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Will allow continued vehicle access on 0.5 miles of vehicle routes. MA open to all types of recreational use.

Soils and Water Resources - Minor soil compaction and sheet erosion due to ORV activity on roads, ways, and trails. The potential for new vehicle routes exist which will further increase soil erosion. Other recreation uses will have a negligible effect.

Wildlife - Intensive recreation opportunities will be limited to a small part of the area and will displace wildlife and impact vegetation. Wildlife on the remaining portion is protected from intensive uses by rocky terrain, cliffs, and steep slopes.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Impacts will depend on the type of resource development allowed.

Wildlife - No known impacts.

ALTERNATIVE IV: PRESENT MANAGEMENT

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - Oil and Gas. Under present management 2 oil and gas lease applications have been rejected, representing a loss in annual rental of $50.

Realty - No known impacts.

Recreation - No known impacts.

Soils and Water Resources - Exclusion of oil and gas development will protect soil and water resources from surface disturbance caused by these actions. No impacts expected from other mineral related activities since potential for development is low to zero.

Wildlife - Same as Alternative I.

RECREATION USE

Cultural and Paleontological Resources - Same as Alternative II.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Present management will allow continued vehicle access on 0.5 miles of roads, ways, and trails. The MA is open to all recreational uses.

Soils and Water Resources - Increased soil compaction and soil erosion due to ORV activity on roads, ways and trails at all times of the year. Potential for new ORV routes exists, which will further increase erosion. Other recreation uses will have a negligible effect.

Wildlife - Intensive recreation opportunities are limited to a small part of the area and displace wildlife and impact vegetation. Wildlife on the remaining portion is protected from intensive uses by rocky terrain, cliffs, and steep slopes.

SPECIAL LAND AND RESOURCE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - May require re-routing or rejection of some land use applications.

Recreation - No impacts.

Soils and Water Resources - Impacts will depend on the type of resource development allowed in the MA.

Wildlife - No known impacts.

MANAGEMENT AREA 4: SODA LAKE

ALTERNATIVE I: EMPHASIZE PROTECTION

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No livestock grazing will result in the potential loss of 126 AUMs of forage on the average. Since grazing is not permitted at present, conditions will remain static.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - The protection of 760 acres of upland game habitat utilized by SJKF, BNLL, upland game, and a variety of raptors including the bald eagle will be ensured.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas - No leasing will be permitted representing a potential loss of $3000 in annual rental fees.
2) Locatable Minerals - There are no locatable minerals in this MA; therefore, no impacts will occur.
3) Other Leasable and Saleable Minerals - Soda Lake contains an estimated 500,000 tons of sodium sulfate. WIthdrawal will prevent development of this deposit. This deposit is not considered economic, interest in it has been low.

Realty - No known impacts.

Recreation - No known impacts. This alternative provides for continued undisturbed recreational activities.

Soils and Water Resources - No impacts.

Wildlife - Protection of habitat for three endangered species, one of the state's highest winter concentrations of sandhill cranes, and an unique alkali sink ecosystem will be ensured.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Closure to recreation will eliminate 2,970 acres from recreational use. 7,200 visitor hours per year will be eliminated (hunting, birdwatching, and ORVs).

Soils and Water Resources - CLosing the MA to ORV use will help prevent soil compaction, accelerated erosion, and sedimentation in tributaries to Soda Lake. Other recreation uses will have a negligible effect.

Wildlife - Surface protection for habitat of all wildlife in the MA will be ensured. Realized improvement may be negligible.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - Designation of Soda Lake as an ACEC will ensure the protection of one historic site.

No impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - May require re-routing or rejection of some land use applications.

Recreation - Loss of all recreational opportunities on 2,970 acres.

Soils and Water Resources - Some minor, short-term soil erosion from fence construction. Withdrawal of the MA from entry and leasing will further ensure protection of water resources.

Wildlife - Positive effects on BNLL, SJKF, bald eagles, shorebirds, sandhill cranes, and a variety of raptors will be achieved. It will also ensure that habitat will not be disturbed by development and will allow full implementation of the HMP in the near future.

MANAGEMENT AREA 4: SODA LAKE

ALTERNATIVE IA: NO GRAZING

- Same as Alternative I.

MANAGEMENT AREA 4: SODA LAKE

ALTERNATIVE II: COMBINED EMPHASIS

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - Same as Alternative I.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - Same as Alternative I.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas - Leasing with NSO will cause no impacts on the leasehold area. However, the impacts will be the same as Alternative III for land surrounding the leasehold area.
2) Locatable Minerals - There are no locatable minerals in this MA; therefore, no impacts will occur.
3) Other Leasable and Saleable Minerals - No impacts for other leasable minerals. There has been no historical demand for those saleable minerals (clays) in the MA; therefore, impacts to the economy will be negligible.

Realty - No known impacts.

Recreation - No impacts. This alternative provides for continued undisturbed recreational activities.

Soils and Water Resources - Minor impacts to soil and water resources will occur from the use of vehicle routes during exploration.

Wildlife - Oil and gas development with no surface occupancy represents some potentially significant impacts. Visual and noise disturbance from private land adjacent to the MA will have a negative impact on roosting sandhill cranes. The level of impact will be dependent upon the proximity of drilling to the roost sites (refer to Soda Lake EA No. CA-016-82-020). Also any activities on private land to develop the NSO lease will adversely impact sandhill crane feeding areas.

Disturbance of BNLL and SJKL habitat on surrounding private land will adversely affect these two endangered species.

The threat of oil spills represents a potential impact not only to the fauna using the lake but also to small mammals that provide food for SJKF and the burrow systems used by BNLLs.

There is also the potential for surface mining adversely affecting SJKF, BNLL, sandhill cranes, and a variety of raptors (including the federally listed endangered bald eagle) if habitat for the prey base species is disturbed.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts to recreation due to the lack of practical ORV opportunities (lake surface unsuitable for vehicle travel). Will enhance hunting and birdwatching by allowing 2,970 acres for use.

Soils and Water Resources - Closing the MA to ORV use will help prevent soil compaction, accelerated erosion, and sedimentation in tributaries to Soda Lake. Other recreation uses will have a negligible effect.

Wildlife - Will provide habitat protection; however, actual impacts will be insignificant.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - Designation of Soda Lake as an ACEC will ensure the protection of one historic site.

No impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - May require re-routing or rejection of some land use applications.

Recreation - No known impacts.

Soils and Water Resources - Some minor, short-term soil erosion from fence construction. Withdrawal of the MA from entry and leasing will further ensure protection of water resources.

Wildlife - Positive effects on BNLL, SJKF, bald eagles, shorebirds, sandhill cranes, and a variety of raptors will be achieved. It will also ensure that habitat will not be disturbed by development and will allow full implementation of the HMP in the near future.

ALTERNATIVE III: EMPHASIZE PRODUCTION

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - 126 AUMs of forage will be grazed by livestock under this alternative. Since this area will probably not be under mulch management, the area will be heavily grazed on poor forage years and lightly grazed in the good years. Some fencing may be required to control livestock.

Minerals - No impacts.

Realty - No known impacts.

Recreation - If a new allotment(s) was established and fencing installed, a possible loss of ORV use, hiking, and horseback riding opportunities may occur.

Soils and Water Resources - Soda Lake is a natural, saline lake. The lake's water is used for maintaining aquatic and terrestrial wildlife habitat. If grazing is authorized, minor impacts to water quality in the lake could occur. In addition, minor soil compaction will occur in areas of livestock concentrations.

Wildlife - Slight decline in habitat conditions and prey base for endangered species. May also have slight adverse impacts to the sandhill cranes.

MINERALS

Cultural and Paleontological Resources - Potential indirect impacts to cultural resources from mining activities due to casual collecting from people working in the area.

No known impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Potential loss of recreational activities on portions of 2,970 acres of the MA that could be leased for mineral extraction.

Soils and Water Resources - Same as Alternative IV.

Wildlife - Surface disturbance removing food and habitat will significantly impact endangered species, raptors, and sandhill cranes.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Same as Alternative II.

Soils and Water Resources - Minor soil compaction and sheet erosion will occur where roads, ways, and trails are used. Other recreational uses will have a negligible effect.

Wildlife - No known impacts.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - ORV use will be limited to existing roads, ways, and trails (10 miles). No further cross-country ORV travel will be allowed on 2,970 acres.

Soils and Water Resources - Same as Alternative I and II except possible impacts to tributary flows and water quality may occur if the MA is not withdrawn.

Wildlife - Potential negative impacts to SJKF, BNLL, and sandhill cranes. Level of impacts depend on the level of development.

MANAGEMENT AREA 4: SODA LAKE

ALTERNATIVE IV: PRESENT MANAGEMENT

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts

Recreation - No impacts.

Soils and Water Resources - Soda Lake is a natural, saline lake. The lake's water is used for maintaining aquatic and terrestrial wildlife habitat. If grazing is authorized, minor impacts to water quality in the lake may occur. In addition, minor soil compaction and soil erosion will occur in areas of livestock concentrations.

Wildlife - No known impacts.

MINERALS

Cultural and Paleontological Resources - Same as Alternative III.

Livestock Grazing - No impacts.

Minerals-
1) Oil and Gas - Under present management all oil and gas exploration and lease applications have been rejected representing a loss in annual rental of $3,000.
2) Locatable Minerals - Although this MA is open to entry under the mining laws, none have been filed, therefore, no impacts will occur.
3) Other Leasable and Saleable Minerals - This MA is open to geothermal exploration; however, geologic conditions are not favorable for this resource and it is considered to have no development potential. Soda Lake contains an estimated 500,000 tons of sodium sulfate. The U.S.Geological Survey considers this deposit prospectively valuable. In the past and at present vast deposits east of the Sierra Nevada supply all market needs for this material. The deposit at Soda Lake will not be economical to develop for the foreseeable future; therefore, impact is considered to be low. There has been no historical demand for the saleable mineral (clays) in this MA; therefore, impacts to the economy will be negligible.

Realty - No known impacts.

Recreation - Potential loss of recreational activities on portions of the 2,970 acres in the MA if leased for the extraction of sodium sulfate.

Soils and Water Resources - The sensitive nature of wildlife and water resources in the MA is protected by excluding all oil and gas exploration and development. No impacts expected from other mineral activities since potential for development is low to zero.

Wildlife - Same as Alternative II.

RECREATION USE

Cultural and Paleontological Resources - Potential adverse impacts to cultural resources due to casual collecting.

No known impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - 2,970 acres open for all recreation uses including 10 miles of roads, ways, and trails.

Soils and Water Resources - Allowing ORV use in the entire MA will cause an increase in soil compaction, sheet and rill erosion, and sedimentation in tributaries to Soda Lake. The amount of erosion depends on the magnitude of use.

Wildlife - No known impacts.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Minor, short-term soil erosion from wind and/or water due to surface disturbance from trail and fencing activities. The potential exists for interruption of tributary inflow into the lake and for water quality problems caused by adjacent land uses.

Wildlife - Same as Alternative I except at a slower rate resulting from the lack of outside contributions.

MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

ALTERNATIVE I: EMPHASIZE PROTECTION

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - Loss of potential revenue from disposal.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - Ensures the protection and maintenance of isolated parcels that may provide habitat for federally listed T and E species.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - An analysis of research literature titled Managing for Mulch (BLM, 1982) by Donald Heinze made the following observations: "A large amount of research recommends managing for a target amount of dry herbaceous matter in pounds per acre or kilograms per hectare to remain at the end of the grazing season. This is referred to as residual mulch...

Hopkins (1954) states that mulch prevents high surface temperatures, improves the soil as a habitat for organisms, retards evaporation, and increases infiltration. A negative aspect he noted was that mulch also tends to make the soil warm up slower in the spring[1].

Singer, et. al. (1980) reported that soil loss at the Sierra Foothills Range Field Station was 75 percent greater on plots where mulch had been removed. It stands to reason that the more mulch, the more seeds will be available for granivorous birds and mammals as well as for species regeneration the following year.

It is also obvious that a rangeland that has residual vegetation is much more appealing to the eye than one where everything has been removed by grazing animals.

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[1] This may be a positive aspect if the objective is a later green period.

Bartolome, et al. (1980) found that the amount of mulch left had a very significant effect on annual rangelands which receive an average annual precipitation of more than 15 inches. They found that optimum production of desirable species resulted from rangelands where 750 pounds per acre were left." The analysis goes on to say that Bartolome, et al. (1980) found that less than 750 pounds per acre resulted in less production. The amount of mulch left on areas with less than 15 inches of precipitation did not affect the following year's production.

The research literature points out that by annually adjusting grazing use, the forage production fluctuations of the California annual range can be closely followed. This results in less or no heavy grazing use on a yearly average in a poor forage year. In summary, mulch management will provide the most efficient use of the forage while providing the most protection from heavy grazing by livestock on I category allotments.

The rather large mulch requirements in this alternative is estimated to result in light grazing. "Light grazing resulted in the best soil-surface conditions and winter forage growth... But it left on the ground a considerable bulk of herbage that could have been grazed to increase cattle production.

An intermediate degree of grazing, between no grazing and light grazing was the most efficient. It maintained a satisfactory litter cover without apparent soil deterioration. Winter growth of forage was also satisfactory, and there was no significant decrease in amount of desirable forage species" (Bently and Telbot, 1951).

These mulch levels of this alternative will also restrict the amount of grazing on areas receiving less than 15 inches of precipitation, possibly to the point of no grazing on a poor forage year.

The limitation of utilization of current years growth to 20-40% on saltbush and key browse plants will improve plant vigor and reproduction in the short term (especially season long use allotments). However, increasingly larger portions of these plant populations will be made up of decadent plants as time goes on. The only areas where perennial key browse plants will not become decadent are those receiving significant deer use or those that have been burned.

The fence proposed for allotment 0053 will improve livestock distribution on the allotment and allow for some control of the amount and timing of livestock grazing on saltbush, Ariplex polycarpa. A total of 5 acres will be disturbed by the project.

Prescribed burning of 4,274 acres on allotments 0031, 0044, and 0070 will temporarily remove ungrazable vegetation which, in turn, will be replaced by approximately 758 AUMs ($1,100 potential revenue to public) of grazable forage on food forage years for several years. The grazable forage will be replaced again by chaparral in approximately 5 years unless maintained. "In the California chaparral especially, burning is commonly practiced on deeper, more level soils, great forage increases often results, lasting usually two to four years before brush again dominates" (Stoddard and Smith, 1955). Soil erosion will temporarily increase until the new grazable forage started growth.

Although livestock numbers remain constant on the allotments which are not under mulch management, greater utilization of individual forage plants will occur during poor forage years than in good forage years, but this depends on how the adjoining private land is managed (especially C category allotments). The most protection from heavy grazing on non-mulch management allotments during poor forage years is provided by the forage allowances of this alternative. The forage allowances of this alternative will also leave more forage unused on good production years.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Allotments 0015, 0063, and 0096 preclude cross-country ORV travel, 4x4 vehicles, and horseback riding due to fencing.

Soils and Water Resources -

1) I Category Allotments - This alternative provides the greatest amount of residual mulch per acre of all alternatives considered. Residual mulch increases infiltration, binds soil particles together, and retards erosion (Hopkins, 1954; Singer et al., 1981).

A reduction in erosion will reduce sediment input to streams; however, mulch management will not allow improvement of other water quality parameters or of channel stability since livestock congregate around water sources regardless of how much vegetation is allocated (Armour, 1977). Impacts to water quality and channel stability will increase further during years of high forage production when more grazing can occur before the minimum mulch level is reached.

2) M and C Category Allotments - Reduction in stocking rates of more than 20% from current levels will improve water quality by reducing undesirable bacteria nutrients and higher temperatures caused by livestock use and will improve channel stability. Smaller reductions will have a negligible effect. Natural water quality in this MA is poor. Even with reductions in grazing use, water quality will still be unsuitable for human use. As with I category allotments, impacts on water quality and channel stability will increase when additional grazing occurs during years of high forage production.

3) Range Improvements - Vegetation manipulation on 4,274 acres will remove vegetation cover which will cause a temporary increase in surface erosion. Larger, shrubby forms of vegetation which will be removed contribute to slope stability by binding the soil together with their root mats. On especially unstable soils, the incidence of landslides and dry ravel could increase when that root strength is lost. An additional concern exists in areas which have soils

that form water repellent layers upon burning. Water repellency causes increased surface runoff and contributes to surface erosion (DeBano et al., 1979). Vegetation manipulation results in a short term increase in water yield in areas where annual precipitation exceeds 18 inches (Hibbert, 1983). This may be beneficial if water is most needed during the time when the increase in flow occurs.

The proposed fence will remove a small amount of vegetation and will cause minor surface erosion. The cattleguard will have a negligible impact.

Wildlife -

1) I Category Allotments - Maintaining 400 lbs. mulch per acres (200 lbs. mulch per acre on allotment 0063) above minimum mulch recommendations will increase the prey base for SJKF, BNLL and raptors on 90,301 acres of habitat. Food, escape cover, and nesting requirements will improve significantly on San Joaquin antelope ground squirrel habitat (67,000 acres), giant kangaroo rat habitat (5,000 acres), and upland game habitat (117,238 acres). Density, reproduction, and form class of saltbush and browse will improve, resulting in significant improvements in escape and nesting cover for upland game and BNLL. Food and thermal cover will improve on 109,350 acres of deer habitat. Overall populations of deer, upland game, BNLL, and SJKF will show moderate increases.
2) M and C Category Allotments - A reduction of 1,325 AUMs (16%) will provide benefits similar to those on I category allotments and will affect 27,090 acres of BNLL habitat, 29,840 acres of SJKF habitat, 12,420 acres of upland game habitat, and 15,230 acres of deer habitat. The greatest benefit to deer will be on allotment 0021. This reduction will provide a buffer during unfavorable years, and ensures improvement in browse and saltbush conditions. Wildlife populations will increase moderately.

The mosaic pattern resulting from vegetation manipulation (prescribed burning) will provide more of an edge effect for wildlife and may cause a change in species composition.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - Little additional impact from oil and gas lease development will occur on grazing allotments 0003, 0015, 0016, 0019, and 0106, currently located within active lease areas. Oil and gas leasing and development will expand into grazing land where there is no oil and gas activity now. The limitations on lease development of currently, active leases may shift more development onto now inactive areas within grazing allotments. Each developed (producing) lease areas is expected to have a one-acre well site cleared of vegetation per five acres of mineral leasing. No impacts are foreseen from other mineral activities.

Minerals

1) Oil and Gas

a) Exploration - Exploration activities will not be allowed on 21,750 acres of this MA. These activities involve mainly seismic exploration designed to yield information on subsurface structure. Withdrawal of these areas will make this information unattainable wherever data from surrounding areas could not be extrapolated (generally areas greater than one square mile: portions of the proposed Elkhorn Plain ACEC).

b) Pre-lease - Oil and gas leases will not be allowed on 21,750 acres of this MA. If all acreage is leased this will result in a loss of an annual rental of $27,270 per year (not including potential royalties) or 6% of total annual rental now being received from this MA.

c) Post-leasing - Since no leases will be issued on Special Category Areas, no post-lease development or production will occur on 21,750 acres.

2) Locatable Minerals - Mineral entry under the mining laws will be prohibited on 21,750 acres of Special Category Areas in this MA. Geologic conditions are generally unfavorable for locatable mineral resources. Identified deposits of agricultural additive (gypsite) on public land that will be withdrawn from mineral entry represents approximately 4% of the identified resources in this MA. There will be no significant impacts to the resource as almost all the identified reserves are already under mining claim location, subject to valid rights.

3) Other Leasable and Saleable Minerals - There are approximately 8,000 acres of public land containing known sand and gravel resources in this MA. All of this area lies along the eastern margin of the Temblor Range. Withdrawal of critical/proposed habitat will prohibit sand and gravel operations on 10% of this area. Resources on private and public land are considered to be well in excess of demand in all areas of critical/proposed critical habitat, therefore, removal of this percentage of the resource over a large area will have little or no impact. All commercial operations are on private land.

No impact to geothermal resources since there is no potential in this MA.

Approximately 1,500 acres of public land prospectively valuable for phosphate will be lost.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative IV except, for impacts to Special Category Areas. Positive impacts result from reserving these areas (21,750 acres) from development under oil and gas/hydrocarbon leasing, mineral leasing and mining laws which will protect them from associated impacts discussed in Alternative IV (except indirect impacts from adjacent areas). Natural rates of erosion will be preserved in these areas making them valuable for comparison with monitored unprotected areas.

Wildlife -

1) Rare, Threatened and Endangered Species - 10,800 acres of essential habitat for BNLL and/or SJKF will be preserved in it's current condition. 8,600 acres of known habitat for BNLL, SJKF, and California condors in the proposed Elkhorn Plain ACEC will be protected. Maintaining surface cover will also benefit 67,000 acre of SJKF, San Joaquin antelope ground squirrel habitat, and at least 5,000 acres of giant kangaroo rat habitat. T and E species will not be jeopardized and positive conservation measures will be realized.

2) Waterfowl and Shorebirds - Slight positive affect resulting from ACEC designation of Goose Lake.

3) Upland Game - Slight positive affect on dove and quail in Special Category Areas.

4) Deer - No known impacts.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - May require some land actions for parking areas near the Caliente Mountain easement entrance i.e., encroachment permit from Caltrans.

Recreation

1) The action will reduce the area available at Poso Creek for shooting and hunting by 5 acres. Safety and trash dumping problems will be corrected.

2) Loss of cross-country ORV use and ORV dependent recreation (hunting, wildlife observers, and rockhounds). ORV use will be restricted to existing roads, ways, and trails (approximately 720 miles).

3) An increase of hunter, hiker, and horseback riding use with related visitor use problems due to the opening of the approximate 3.5 mile access route to Caliente Mountain.

Soils and Water Resources - Limiting ORV use to existing roads, ways, and trails will help to prevent soil compaction, accelerated erosion, and stream sedimentation.

Wildlife - Providing access to the Caliente Range may adversely affect the upland game and small deer population within the area by increasing hunting pressure.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - Designation of Goose Lake will ensure protection of a cultural site with National Register potential (40 acres); designation of Reef Ridge will ensure protection of well known type localities of significant paleontological value in West Coast sedimentary geology (1,000 acres).

Livestock Grazing - No impacts.

Minerals - Designation of San Andreas Fault Scarp will ensure protection of an internationally significant scientific study area (1,120 acres).

The acreage where no construction will be allowed (11,000) is included in the Minerals Issue impacts above (Special Category Areas).

Realty - May require re-routing of some proposed rights-of-way and other land actions.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - Designation of Goose Lake will ensure protection of one of the few remaining alkali sink habitats supporting both shorebirds and raptors as well as other wildlife species (40 acres).
1) Rare, Threatened, and Endangered Species - Designation of Elkhorn Plain will ensure protection of 3 federally listed endangered species (BNLL, SJKF, California condor) and 2 state listed species (giant kangaroo rat and San Joaquin antelope ground squirrel) habitat (8,600 acres). Protection of 10,800 acres of essential habitat from surface disturbing construction will generally benefit SJKF and BNLL. Ensures pesticide and herbicide spraying do not jeopardize BNLL. Overall positive effects on endangered species habitat.
2) Upland Game - Spraying restrictions around the existing guzzlers will benefit the most significant quail, dove, and chukar populations in the planning area. Adequate food during the critical nesting period of upland game will be provided by prohibiting spraying from April through June.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - The restriction of construction on slopes less than 30% will prohibit construction of 1 mile of fence out of 5 miles proposed for allotment 0053. The fence is needed to implement an activity plan with the objective of improving upland game habitat and implementing mulch management.

Minerals -
1) Oil and Gas
a) Exploration - No impacts since exploration activities normally do not require construction activities.
b) Pre/Post-leasing - Leases and permits may contain special stipulations which will restrict development (such as no surface occupancy). Roads, pipelines, sumps, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 30% (95,570 acres or 26% of the public land in this MA). There is no impact on rental since leases will be let.

2) Locatable Minerals - There will be no impacts on mining activities, but construction activities may be determined to be unnecessary or undue and could possibly require the relocation of any facilities, roads, or structures to other less sensitive locations.
3) Other Leasable and Saleable Minerals - There will be no impacts to mining activities, but no construction activities will be allowed on 95,570 acres of highly erosive soils or on slopes greater than 30%. Impacts will be low since demand and potential is low.

Realty - May require re-routing or rejection of some land use applications due to slope and/or soil types.

Recreation - The access trail/road (3.5 miles approximately) up Caliente Mountain will be precluded from construction due to slope restrictions (no construction over 30% slopes). No construction allowed on 95,570 acres where slopes are over 30% slope.

Soils and Water Resources - This alternative provides the best protection for water and soil resources. Protective measures included in this alternative will reduce sheet and gully erosion caused by soil disturbance. This will result in less sedimentation of water resources and improved water quality. Protection of water resources from overuse will result in further improvements in water quality. Some minor, short-term soil erosion will occur due to fence construction.

Wildlife - Reduced erosion and fencing water sources will result in improved browse conditions. More cover for endangered species and upland game will be provided especially around springs. Overall habitat conditions and animal productivity will improve for upland game, BNLL, and SJKF.

ALTERNATIVE IA: NO GRAZING

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Adverse impacts due to livestock trampling, trampling related activities, and midden contamination will be eliminated.

No impacts to paleontological resources.

Livestock Grazing - This alternative will result in the loss of 29,029 AUMs ($40,600 potential revenue loss to public and $256,900 necessary to graze same AUM level on private land) of annual average grazing use each year. "The mechanical action of animals in loosening seed, carrying burs, awned seeds, and the like in their hair, in distribution of hard-coated seeds through the feces, and loosening bulbs, corms, and bits of rhizome that they may be transported elsewhere is probably of unsuspected importance. There are instances in which total protection of range from livestock has failed to result in the expected revival of the vegetation, presumably because of the lack of animal acting in aiding reproduction... It is often felt by stockmen that ungrazed plants are not so healthy and vigorous as lightly grazed plants, and research seems to indicate that properly grazed plants are as productive as or more productive than ungrazed" (Stoddard and Smith, 1955). Besides the impact of stagnated perennial plant communities in the long-run, there will be significant short-term impact from the construction of several miles of fence to keep livestock grazing adjacent private land from wandering onto public land. Also fire hazard will increase from a buildup of old vegetation.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Will open 151,540 acres up to total recreational use due to the lack of fences.

Soils and Water Resources - The adverse impacts on water quality and soil stability caused by grazing and associated range improvements will no longer occur under this alternative. Accelerated erosion due to livestock grazing will stop and conditions on formerly grazed areas will gradually improve.

Wildlife - Same as Alternative I except, that peak wildlife populations will be higher and will be achieved sooner. Populations will become even more controlled by climatic factors than under Alternative I. During exceptionally high growth years, the prey base for SJKF may actually be reduced if the vegetation becomes too dense.

MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

ALTERNATIVE II: COMBINED EMPHASIS

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals -
1)Oil and Gas
a) Exploration - Approximately 2,010 acres of public land will be removed from exploration activities, about 1% of the total public land available in the MA.
b) Pre/Post-Leasing - No impacts since minerals are reserve in any disposal.
2) Locatable Minerals - No long term impacts since minerals reserved in any disposal.
3) Other Leasable and Saleable Minerals - No impacts since minerals reserved in any disposal.

Realty - Sale of public land will increase property tax revenues to local governments and reduce potential management costs to the Bureau. Sale will bring an economic return to the public of approximately $400,000 at fair market value (estimated at $200/acre).

Recreation - Potential loss of 2,010 acres to recreational use.

Soils and Water Resources - No impacts.

Wildlife - No impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Adverse impacts to cultural resource sites result from livestock concentrations in range improvement areas result in which trampling and trampling-related erosion occur. Livestock rubbing against standing historic structures and livestock concentrations at prehistoric cultural resource sites may result in the deterioration of standing structures and features, breakage of surface artifacts, vertical and horizontal mixing of midden constituents, and subtle changes in the depositional matrices of subsurface sites (e.g., pollen count, carbon contamination, and pH level).

Prescribed burning could adversely affect historic and prehistoric sites. If historic wooden structures are within the burn area they could be destroyed. Prehistoric sites with midden could also be adversely affected as the soil chemistry and organic matter used in radiocarbon dating can be altered by the effects of fire. Other potential adverse effects of prescribed burning on cultural resource sites are: line construction, chaining, and brush crushing.

The proposed 8 miles of fence, cattleguard, and water developments could adversely affect cultural resources by breaking of surface and subsurface artifacts, and mixing of midden deposits. Increased use of livestock developments and fence lines could also increase vertical and horizontal mixing of midden constituents, breakage of artifacts, and contamination of pollen and carbon.

No known impacts to paleontological resources.

Livestock Grazing - The effects of mulch management will be the same as Alternative I. Mulch levels specified for this alternative are expected to result in a moderate degree of grazing pressure annually, which was previously stated in Alternative I as the most desirable.

The limitation of utilization of the current years growth to 40%-60% on saltbush and key browse plants will ensure that the plants tolerance to grazing is not exceeded. "A grazed plant is like a pruned plant, and every nurseryman or orchardman known the value of pruning the woody plant. Upon grazing, the plant will branch and become more busy, and this forage will be less rank and fibrous" (Stoddard and Smith, 1955).

The fence and water developments proposed in this alternative will improve livestock distribution to promote a more even forage utilization pattern and/or provide for control of livestock utilization on saltbush important to upland game habitat. The water developments will result in relatively small concentrated areas denuded of vegetation. It is estimated that a total of 16 acres will be disturbed by the project.

Prescribed burning of 5,583 acres on allotments 0031, 0044, and 0070 will temporarily remove ungrazable vegetation which, in turn, will be replaced by approximately 1,012 AUMs ($1,400 potential revenue to public) of grazable forage on good forage years for several years. The grazable forage will eventually be replaced again by chaparral in approximately 5 years unless maintained. Soil erosion will temporarily increase until new grazable forage starts to grow.

Although livestock numbers remain constant on the allotments which are not under mulch management, greater utilization of individual forage plants will occur during poor forage years than in good years, but this depends largely on how the adjoining private land is managed (especially C category allotments). A moderate level of protection (between Alternatives I and III) from heavy grazing on poor forage years is provided by the forage allowances of this alternative. Also less forage is left on good forage years in this alternative than in Alternative I.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Same as Alternative I.

Soils and Water Resources -

1) I Category Allotments - The positive effects of mulch management for I category allotments will be less under this alternative than under Alternative I where more residual mulch per acre is retained. Residual mulch increases infiltration, binds soil particles together, and retards erosion (Hopkins, 1954; Singer et al., 1981). A reduction in erosion will reduce sediment input to streams. However, mulch management will not allow improvement of other water quality parameters or of channel stability since livestock congregate around water sources regardless of how vegetation is allocated (Armour, 1977). Impacts will increase further during years of high forage production when more grazing can occur before the minimum mulch level is reached.

2) M and C Category Allotments - The reduction in stocking rates that are proposed on M and C category allotments are small and will have a negligible impact since livestock congregate near water sources and small changes in numbers will have a indistinguishable effect.

3) Range Improvements - Impacts from vegetation manipulation for range improvements will be the same as Alternative I. The proposed fence will remove a small amount of vegetation and will cause minor surface erosion. The water pipelines and troughs will have a beneficial impact on water and soil resources by dispersing livestock use and easing grazing pressure on natural resources. Portions of the pipeline proposed for construction on slopes exceeding 50% could cause accelerated erosion. The construction of the cattleguard will have a negligible effect.

Wildlife

1) I Category Allotments - Food and cover for SJKF, BNLL, and raptor prey species will increase moderately on 90,301 acres of habitat. Food, escape cover, and nesting cover will improve moderately on 117,240 acres of upland game habitat. Form class of browse and saltbush may improve and benefit deer, upland game, and BNLL. However, reproduction will not be expected to improve significantly under 40%-60% utilization every year. Deer, upland game, and endangered species will all be expected to show slight to moderate increases.

2) M and C Category Allotments - A reduction of 670 AUMs (8%) will slightly improve habitat for BNLL, SJKF, and raptor prey species and upland game. Improved browse form class will benefit deer slightly. However, regeneration of saltbush and browse will continue to be limited. Populations of BNLL, SJKF, and upland game may increase slightly, but deer populations will remain static.

The mosaic pattern resulting from vegetation manipulation (prescribed burning) will provide most of an edge effect for wildlife and may cause a change in species composition.

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - Lease development will occur on active leases throughout allotments 0003, 0016, 0019, and 0106 resulting in loss of vegetation on one fifth of the acreage of these allotments. A small portions of allotment 0015 (1,080 acres) within an active lease will also be developed. Total loss of vegetation after full development of currently active leases will be realized on approximately 1,953 acres, or a loss of 325 AUMs. Some revegetation will occur over time and reclamation of abandoned wells will help offset the impact.

Minerals -

1) Oil and Gas -

a) Exploration - Exploration activities may be inhibited by special stipulations designed to protect sensitive resources in Special Category Areas; however, this is not expected to significantly interfere with data collection.

b) Pre-leasing - Leases will not be issued on 12,750 acres of Special Category Areas. This represents a loss of annual rental of $12,750 or 3% of all leasable public land in the MA. Leases will be issued on 9,000 acres of Special Category Areas with a no surface occupancy stipulation. This will have no effect on rental or royalty rates.

c) Post-leasing - No surface development will be allowed on any of the leases issued on Special Category Areas. Development is limited by the application of directional (slant) drilling techniques on 9,000 acres of Special Category Areas. All development and potential production is prohibited on the remaining 12,750 acres of Special Category Areas.

2) Locatable Minerals - Mineral entry under the mining laws will not be allowed on 230 acres of Special Category Areas (Goose Lake, cultural sites). No known mineral deposits occur in these areas, therefore, there will be no significant impact. All other Special Category Areas, 21,520 acres will be managed through stipulations and mitigating measures on an approved Plan of Operation; thus, impacts on mining claim development will be negligible.

3) Other Leasable and Saleable Minerals -

a) Exploration - Geothermal exploration NOIs and prospecting permits will be subject to a negligible surface disturbance conditions on 21,750 acres of Special Category Areas. Potential for geothermal and leasable mineral resources is very low in this MA; no KLAs or KGRAs exist. Impacts are expected to be negligible. Deposits of mineral material are generally common, well known, and predicable. Restrictions on exploration on public land are not expected to have significant impact.

b) Prelease - 36,000 acres of Special Category Areas will be subject to very restrictive conditions and a NSO stipulation. This will have the effect of precluding leasing in most cases (1,500 acres of prospectively valuable phosphate land). Nonetheless, impacts are expected to be negligible since resource potential for leasable minerals is very low (there are no KGRAs and KLAs at present).

There are approximately 8,000 acres of public land containing sand and gravel resources in this MA. All of this area lies along the eastern margin of the Temblor Range. 800 acres of Special Category Area (critical/proposed critical habitat) fall within this area. Resources on private and public land are considered to be well in excess of demand around the 800 acres of Special Category Area. Use of these scattered acres will be unnecessary in an emergency since there is adequate supply from surrounding areas. Impacts will be negligible.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative IV, except for impacts to Special Category Areas (21,750 acres). Special Category Areas will suffer minor adverse impacts from soil compaction, increased runoff, and erosion associated with continued use of preexisting roads. This will detract from positive impacts discussed under Alternative I.

Wildlife -

1) Rare, Threatened, and Endangered Species - Areas of endangered species habitat protected will be the same as Alternative I; however, the level of protection will be slightly lower. This alternative complies with the Endangered Species Act.
2) Upland Game - No known impacts.
3) Deer - No known impacts.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - May require a right-of-way to the Bureau for a new shooting site. May also require some land actions for parking areas near Caliente Mountain's easement entrances i.e., encroachment permit from Caltrans.

Recreation - Same as Alternative I.

Soils and Water Resources - Same as Alternative I.

Wildlife - Providing access to the Caliente Range may adversely affect the upland game and small deer population within the area by increasing hunting pressure.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - Same as Alternative I.

Livestock Grazing - No impacts.

Minerals - Designation of San Andreas Fault Scarp will ensure protection of an internationally significant scientific study area (1,120 acres).

Realty - No known impacts.

Recreation - Same as Alternative I.

Soils and Water Resources - No impacts.

Wildlife - 1) Threatened and Endangered Species - Meets minimum legal requirements for protection of endangered species habitat.
2) Upland Game - Same as Alternative I.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - The restriction of construction on slopes less than 50% will prohibit construction of 0.5 miles of a 3-mile pipeline for allotment 0044, 0.2 miles of a 4-mile pipeline for allotment 0053, 1.5 miles of a 5-mile pipeline for allotment 0073, and 1.5 miles of a 3-mile pipeline for allotment 0096. The water developments are needed to improve livestock distribution so that livestock use is shifted from areas of heavy grazing pressure to areas of light grazing pressure. The improved distribution should improve watershed protection.

In addition, 0.5 of a 8-mile fence proposed on allotment 0053 will not be constructed. The fence is needed to implement an activity plan with the objective of improving upland game habitat and implementing mulch management.

Minerals -
  1) Oil and Gas
    a) Exploration - No impacts since exploration activities normally do not require construction.
    b) Pre/Post-leasing - Leases and permits may contain special stipulations which may restrict development (such as no surface occupany). Roads, sumps, pipelines, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 50% (48,210 acres of 12% of the public land in this MA available). There will be no impact on rental since leases will be let.
  2) Locatable Minerals - There will no impacts on mining activity; however, construction activities may be determined to be undue or unnecessary and could possibly require the operator to relocate the construction activities to an area less sensitive to watershed

impacts. The locatable minerals potential of this MA is relatively low; therefore, no impacts to locatable minerals will occur.

3) Other Leasable and Saleable Minerals - There will be no impacts to mining these resources; however, no construction activities will be allowed on the 48,210 acres of highly erosive soils or on slopes greater than 50%. The leasable mineral and saleable mineral potential of this MA is relatively low; therefore, there will be no impacts to these resources.

Realty - May require re-routing or rejection of some land use applications due to slope and/or soil types.

Recreation - The access trail/road up Caliente Mountain (approximately 3.5 miles) will be precluded, due to slope restrictions of 50%. No construction on 48,210 acres of public land with slopes over 50% will be allowed.

Soils and Water Resources - Same as Alternative I except, construction activities on slopes between 30% and 50% (47,360 acres) will cause an increase in accelerated erosion in the localized area around the activity. Use of secondary (developed) sources will cause minor soil compaction near the source.

Wildlife - Same as Alternative I.

MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

ALTERNATIVE III: EMPHASIZE PRODUCTION

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas
   a) Exploration - Approximately 16,060 acres of public land will be removed from exploration activities, about 4% of the total public land available in the MA.
   b) Pre/Post-Leasing - No impacts since minerals are reserve in any disposal.
2) Locatable Minerals - No long term impacts since minerals reserved in any disposal.
3) Other Leasable and Saleable Minerals - No impacts since minerals reserved in any disposal.

Realty - Sale of public land will increase property tax revenues to local governments and reduce potential management costs to the Bureau. Sales will bring an economic return to the public of approximately $3,200,000 at fair market value (estimated at $200/acre).

Recreation - Potential loss of 16,060 acres to recreational use.

Soils and Water Resources - No impacts.

Wildlife - Same as Alternative II.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Same as Alternative II.

Livestock Grazing - The effect of mulch management will be the same as those for Alternative I. The mulch levels specified for this alternative are expected to result in heavy grazing pressure on poor forage years. The impact of heavy grazing use on California annual ranges is summed up by Bently and Talbot (1951), "close grazing was clearly inefficient from the standpoint of forage production... Most important in the long run, close grazing did not maintain sufficient litter on the soil surface to promote full forage production year after year, and it produced other indications of soil deterioration." The impact described above will be minimal on areas which receive less than 15 inches of rainfall and areas of gentle topography.

The limitation of utilization of current year's growth to 60%-80% on saltbush and key browse plants will result in decreased plant vigor and reproduction. "Remarkable production was obtained from heavily clipped shrubs. On winter range, bitterbrush production was maintained under use of 50 to 60 percent, curleaf mountain mahogany under use of 50 to 60 percent and ceanothus under 35 to 40 percent" (Stoddard and Smith, 1955). Utilization levels in excess of those mentioned above will result in insufficient herbage to replenish root reserves and an inevitable decline in plant health. The fences and water developments proposed in this alternative will improve livestock distribution to promote a more even forage utilization pattern and/or provide for control of livestock utilization on saltbush, important to upland game habitat. The water developments will result in relatively small concentration areas denuded of vegetation. It is estimated that a total of 27 acres of vegetation will be disturbed by the projects.

Prescribed burning of 6,990 acres on allotments 0031, 0044, and 0070 will temporarily remove ungrazable vegetation which will eventually be replaced by approximately 1,316 AUMs ($1,840 potential revenue to public) of grazable forage on good forage years for several years. The grazable forage will be replaced again by chaparral in approximately 5 years unless maintained. An additional 15,160 acres of public land will be offered for new grazing allotments. It will not be cost effective to collect grazing fees and maintain records on allotments producing less than 10 AUMs of feed. Otherwise, impacts will be the same as existing allotments which are not placed under mulch management. Although livestock numbers remain constant, greater utilization of individual forage plants will occur during poor forage years than in good forage years, but this depends largely on how the adjoining private land is managed. An estimated 1,500 AUMs ($2,100 potential revenue to public) of livestock forage could be grazed from the new allotment(s). The impacts for allotments not under mulch management will be the same as those for Alternative IV.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Same as Alternative I.

Soils and Water Resources -

1) I Category Allotments - A minimal amount of mulch per acre for I category allotments is retained under this alternative. This will result in heavy grazing pressure, particularly in poor forage production years. Soil compaction, surface erosion, and stream channel sedimentation will increase. In addition, water quality and channel stability will decline since livestock congregate around water sources.

2) M and C Category Allotments - Forage allocation for M and C allotments will be the same as Alternative IV. Natural surface erosion will be accelerated by livestock grazing. Sediment, nutrients, bacteria, and water temperature will be increased by livestock grazing.

3) Range Improvements - Impacts from vegetation manipulation will be the same as in Alternative I. The pipelines, troughs and spring developments are generally beneficial to water and soil resources by dispersing livestock use and easing grazing pressure on natural sources. The spring developments and portions of the pipelines are proposed for construction on slopes in excess of 70%. Construction and livestock use of these developments will cause accelerated soil erosion and sedimentation of drainages. A minor amount of additional erosion will result from construction of a portion of the proposed fence on slopes above 70%. The proposed cattleguard will have a negligible effect.

Wildlife -

1) I Category Allotments - Mulch management for I category allotments will ensure that no adverse affects are felt by T and E species, upland game, and deer during below average rainfall years. This will be largely negated by 60% - 80% browse utilization every year. Wildlife populations will remain at current levels.

2) M and C Category Allotments - Food and cover requirements for endangered species and upland game on M and C category allotments will decline in dry years and improve in wet years. These species will show population fluctuations corresponding to climatic variations.

Browse and saltbush conditions will continue to decline. In the long run, BNLL, SJKF, and upland game populations will decline slightly on the average, but vary significantly from year to year. Deer populations may remain near current levels, but health and productivity will decline in unfavorable years.

The mosaic pattern resulting from vegetation manipulation (prescribed burning) will provide more of an edge effect for wildlife and may cause a change in species composition.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - Same as Alternative II.

Minerals -

1) Oil and Gas

a) Exploration - 21,750 acres of Special Category Areas will be subject to higher reclamation standards in order to achieve the goal of negligible impact. In some cases this may preclude certain types of activities; in others cost of operation may increase. It should be noted that approximately 20,000 acres of Special Category Areas are in areas which are actively being explored. Half of this area is in scattered parcels less than one square mile in size, allowing for considerable adjustment in operating procedures. For these reasons, impacts are expected to be low.

b) Pre-Leasing - 21,750 acres of Special Category Areas will be subject to a NSO stipulation on the lease whenever special stipulations cannot protect sensitive resource values. This will have no impact on annual rental or royalty.

c) Post-Leasing - All Special Category Areas will be available for development and/or production, operating costs may increase due to more extensive rehabilitation. Impacts are expected to be low.

2) Locatable Minerals - Monitoring of operations will be coordinated through a MOU with state agencies, increasing the effectiveness and efficiency of management of public land under "undue and unnecessary degradation" criteria.

3) Other Leasable and Saleable Minerals -

a) Exploration - Geothermal and mineral leasing exploration permits may be subject to a NSO stipulation on 230 acres of Special Category Areas (Goose Lake, cultural sites). 80% of this area consists of scattered sites a few acres in size. The remaining 20% contains no geothermal or leasable mineral potential. Impacts are negligible. Mineral material exploration on Special Category Areas will be subject to constraints of rehabilitation. Impacts are expected to be negligible since sand and gravel occurrence is common, well known, and predictable, requiring minimal exploration activity.

b) Pre-leasing - Geothermal and mineral leasing may be subject to a NSO stipulation on 230 acres of Special Category Areas (Goose Lake, cultural sites). Potential for these resources in this area is very low; therefore, impacts will be negligible. Mineral material disposal on Special Category Areas is unnecessary at this time. There is an adequate supply of this resource on both public and private land. Impacts will be negligible.

c)Post-leasing - No impacts on geothermal and mineral leasing, as well as mineral material disposal.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative IV.

Wildlife -

1) Rare, Threatened, and Endangered Species - Meets the minimum legal requirements not to jeopardize the continued existence of endangered species. Does not meet the Endangered Species Act requirements to implement positive conservation measures. Slight negative effect on BNLL and SJKF.

2) Waterfowl and Shorebirds - At least some temporary disturbance to wetland habitat at Goose Lake. Long term impacts may be negative.

3) Upland Game - Moderately negative impact to dove and quail in the Temblor National Cooperative Land and Wildlife Management Area from shrub removal.

4) Deer - No known impacts.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - May require some land actions for parking areas near the Caliente Mountain's easement entrance i.e., encroachment permit from Caltrans.

Recreation -

1) Continued safety and environmental hazards at Poso Creek site due to unregulated use within the Highway 65 Caltrans right-of-way easement. Opportunities will be assured for continued use of site as a shooting range (5,000 visitor hours per year).
2) Open designation will lead to an unregulated proliferation (on accessible public land) of ORV routes throughout the MA. Problems will be the hardest to manage along the eastern slopes of the Temblor Range (7,000 acres).
3) Opening up the Calientes to vehicle use will provide new ORV opportunities such as hunting (along ridgelines and canyons - approximately 25 miles), but will cause degradation of the Wilderness Study Area, increase fire risks, increase the amount of trash, increase disturbance to wildlife due to increases in human activity and noise, and cause conflicts between motorized and non-motorized recreationists.

Soils and Water Resources - By leaving the entire area open to ORV use, soil compaction, and accelerated erosion will continue to increase.

Wildlife - Any increase in ORV use and soil erosion will have a negative effect on upland game and endangered species habitat. Habitat conditions for these species will decline and may adversely affect BNLL and SJKF.

Opening the Caliente Range may adversely affect the upland game and small deer population within the area by increasing hunting pressure.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - Same as Alternative II.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - The restriction of construction on slopes less than 70% will prohibit construction of 0.5 mile of a 1.5-mile pipeline on allotment 0031, 0.5 mile of a 3-mile pipeline on allotment 0044, and 0.5 mile of a 4-mile pipeline on allotment 0053.

The water developments are needed to improve livestock distribution so that livestock use is shifted from areas of heavy grazing pressure to areas of light grazing pressure. The improved distribution should improve watershed protection.

In addition, 2 miles of a proposed 10 mile fence on allotment 0053 will not be constructed. The fence is needed to implement an activity plan with the objective of improving upland game habitat and implementing mulch management.

Minerals -

1) Oil and Gas -
   a) Exploration - No impacts since exploration activities normally do not require construction.
   b) Pre/Post-Leasing - Leases and permits may contain special stipulations which may restrict development (such as no surface occupancy). Roads, sumps, pipelines, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 70% (15,890 acres or 4% of the public land in this MA). There will be no impact on rental since leases will be let.
2) Locatable Minerals - There will be no impacts on mining activity; however, construction activities may be determined to be undue and unnecessary and could possibly require the operator to relocate the construction activities to an area less sensitive to watershed impacts. The locatable mineral potential of this MA is relatively low; therefore, no impacts to locatable minerals will occur.
3) Other Leasable and Saleable Minerals - There will be no impacts to mining these resources; however, no construction activities will be allowed on the 15,890 acres of highly erosive soils or on slopes greater than 70%. The leasable mineral and saleable mineral potential of this MA is relatively low; therefore, there will be no impacts to these resources.

Realty - May require re-routing or rejection of some land use applications due to slope and/or soil types.

Recreation - The access trail/road (3.5 miles approximately) up Caliente Mountain will not be affected because slopes are not over 70% where the route is to be constructed.

Soils and Water Resources - Construction activities on slopes between 50% and 70% (32,325) acres could cause a significant increase in accelerated erosion depending on soil erodibility, care taken by operators during construction, and climatic conditions following construction. Use of developed water sources will cause minor soil compaction and erosion near the source. Use of natural sources, in addition to developed sources, will cause disturbance resulting in soil compaction, sheet and gully erosion, and poorer water quality.

Wildlife - Same as Alternative I.

MANAGEMENT AREA 5: TEMBLOR-CALIENTE/VALLEY

ALTERNATIVE IV: PRESENT MANAGEMENT

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - Same as Alternative I.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - Loss of potential revenue from disposal.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - Same as Alternative I.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - Same as Alternative II.

Livestock Grazing - Several assumptions have been made in the analysis of this alternative. These assumptions can only be verified by monitoring studies. In the absence of a forage inventory that would have provided an estimate of carrying capacity, the current active preference will represent that estimated average annual carrying capacity. It is assumed that current use (on the average) will not result in utilization on saltbush or key browse forage of over 50% of current year's growth.

Allotments grazed at carrying capacity will result in moderate grazing use of California annual range forage and utilization of saltbush or key browse plants in the 40% to 60% range averaged over a period of 5 to 10 years. The impacts on an average year will be the same as those for Alternative II. However, since mulch management is not proposed in this alternative, greater utilization of individual forage plants will occur during poor forage years than in good forage years if full authorized use was made even though livestock numbers remain constant. Over time forage productivity of annual plants will decline as outlined in livestock grazing analysis of Alternative III. This impact will be more apparent on steep areas and/or areas with greater than 15 inches of rainfall.

An additional impact on poor forage years will be utilization of saltbush or key browse plants greater than 40%-60% of current year's growth. The impacts will be the same as those identified for Alternative III except, not as severe since the good forage years will offset the impact somewhat. Less forage will be left unused on good forage years under this alternative.

The water developments proposed in this alternative will improve livestock distribution to promote a more even forage utilization pattern, shifting grazing use from areas of heavy livestock grazing into areas of light livestock grazing. The water developments will result in relatively small concentration areas denuded of vegetation. It is estimated that a total of 13 acres of vegetation will be disturbed by the water developments. Prescribed burning of 6,990 acres on allotments 0031, 0044, and 0070 will temporarily remove ungrazable vegetation which will,in turn, be replaced by approximately 1,316 AUMs ($1,800 potential revenue to public) of grazable forage on good forage years for several years. The grazable forage will be replaced by chaparral in approximately 5 years unless maintained.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Fenced allotments (without gates or cattleguards) preclude certain types of recreation such as cross-country ORV travel, 4x4 vehicles, and horseback riding. Hikers, hunters, rockhounds, etc. can usually go over/under fences. Most of the access routes in this MA exist because of grazing and mineral activities. The MA is for the most part open, except in the Caliente Range that is surrounded by private land that blocks public access. Allottees have complained that recreationists in this MA leave gates open, cut fences, chase cattle, cause hillside erosion, litter, and shoot water tanks and signs.

Soils and Water Resources - Forage allocations for present livestock use are causing soil compaction and increased sheet and gully erosion in the MA. Springs and associated developments are heavily used. The area surrounding water sources is denuded of vegetation, the soil is compacted, and water quality is degraded by increased levels of nutrients and bacteria. Impacts are greatest during poor forage years when vegetation is overutilized.

Impacts from vegetation manipulation are the same as Alternative I. Impacts from water pipelines and troughs are the same as Alternative III.

Wildlife -

1) Impacts from I category allotments are the same as M and C category allotments under Alternative III except, that impacts will be felt on 90,000 acres of T and E species habitat (75%), 117,000 acres of upland game habitat (90%) and 109,000 acres of deer habitat (85%). (Note: Precentages represent the proportion of total habitat in the MA that will be affected.)
2) Impacts from M and C category allotments are the same as Alternative III.

The mosaic pattern resulting from vegetation manipulation (prescribed burning) will provide more of an edge effect for wildlife and may cause a change in species composition.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - Same as Alternative II except slightly more oil and gas development will occur on public land within grazing allotments than in Alternatives II and III.

Minerals - No known impacts.

Realty - No known impacts.

Recreation - The developed portions of the 404,500 acres of oil and gas leases in this MA provide access for ORVs and other vehicles. Hunting is generally precluded on developed leases due to shooting restrictions and safety consideration. Heavily developed leases are being fenced for security purposes and this eliminates all recreation use of such areas. The heaviest ORV use in this MA is found in the east-central Temblor Range (approximately 7,000 acres affected) and the western Kettleman Hills (approximately 5,000 acres affected). Operating sites of locatable mineral activity (700 acres) have negligible impact on hunting, hiking, horseback riding, and ORV travel.

Special Category Areas affect recreation activities very little in this MA. Essential habitat areas are scattered in the San Joaquin Valley where little recreational use occurs on public land. Few vehicle routes penetrate or come close to the proposed ACECs and therefore, ORVs and most vehicle dependent recreation (vehicle camping, rockhounds, etc.) are precluded.

Soils and Water Resources -

1) Oil and Gas - Under present management 80% of public land in this MA is under lease, 13% is within highly developed KGSs. Overall impact depends on the extent of development that occurs, however, the following types of impacts are known to occur in presently developed areas.

The development of oil and gas resources involves building roads and drill pads, drilling and operating wells, and land reclamation. Roads and drill pads create an impermeable surface which concentrates and increases runoff thus increasing downslope erosion. Sediment from road surfaces, cuts, fills, and ditches flows into drainages and degrades water quality.

Barring unexpected accidents, modern methods for drilling wells generally include adequate measures for protecting groundwater quality. Occasionally during well testing, oil will be allowed to flow into an unlined reserve pit which holds drilling fluids. This creates a potential for groundwater pollution.

The Notice to Lessees and Operators of Federal and Indian Oil and Gas Leases (NTL-2B) states that produced water must be disposed of by: 1) injection into the subsurface; 2) lined pits; or 3) by other acceptable methods. Reinjection into the subsurface and the use of lined pits are the least damaging methods of disposing of waste water. Valley Waste Disposal Company and the South Belridge ponds receive waste water via drainage channels overlying non-potable aquifers. Impacts to groundwater quality occur from this practice because oil content of these waters often exceeds standards set by the State Division of Oil and Gas. In addition, percolation into the subsurface from the drainages and the ponds may adversely affect good quality aquifers since there appears to be a connection between aquifers beneath the oilfields and San Joaquin Valley basin (Rector, 1983). Rehabilitation measures such as recontouring the land and revegetation help minimize long term adverse impacts.
2) Locatable, Other Leasable, and Saleable Minerals - Under present management, approximately 1,000 acres are experiencing or have experienced major surface disturbing mining operations. The extent of impact is directly related to the degree of mineral development. However, the following types of impacts will be expected in mined areas.

Mining can involve building roads, drilling or dozing holes in the earth, constructing drill pads, extracting and processing minerals, disposing of wastes, and reclamation efforts. Building roads can have a greater impact on water and soil resources than the actual mine does. Roads create an impermeable surface which allows runoff to concentrate and increase thus increasing erosion below the road. Interruption of subsurface flow patterns can cause mass failures of road and fill slopes. Sediment from road surfaces and from road cuts, fills, and ditches flows into drainages during rainstorms and degrades water quality.

Road construction and mine development involve removal of vegetation. Removal of vegetation reduces evapotranspiration, thus increasing runoff and erosion. Mining spoils piles have reduced infiltration rates which, in combination with reduced hydraulic resistance of the surface, contribute to increased overland flow and greater erosion. Mining increases the concentration of salts, heavy metals, and sediment in runoff water. Often the chemistry of mine spoils is such that overland flow and streamflow below the spoils is at saturation level with saline, alkaline, acid, and heavy metal cations.

Mining can affect groundwater resources as well. Mining can physically disrupt aquifers supplying recharge to streams. Mining can cause changes in groundwater flow patterns since material which is backfilled into a disrupted aquifer ususally has different hydraulic characteristics than the original aquifer. Putting a pit or shaft into an aquifer can cause a pressure sink which will lower the water table. These effects are detected further and further from the mine over time often causing significant effects such as the drying up of springs. Effects on the aquifer that is mined can affect other aquifers as well since water can often move from one aquifer to another. Groundwater quality can also be affected. Mineral surfaces exposed during mining contribute increased dissolved solids and trace elements to water which perculates into the groundwater supply.

Reclamation efforts including recontouring the land to match the original topography, replacing stockpiled topsoil, revegetation and mulching can minimize long term adverse impacts by preventing further impacts after a mine is abandoned.

Wildlife -

1) Rare,Threatened, and Endangered Species - Under present management, potential impacts to endangered species from proposed wells and other past oil and gas lease operations have occurred in 12.9% of the actions. Only 0.1% of these actions have resulted in formal consultation with the U.S. Fish and Wildlilfe Service, the other 12.8% were modified through field coordination with the operators to cancel any potential impacts to endangered species.
2) Upland Game - Upland game habitat and populations will continue to decline. This impact will be most significant in the foothills of the Temblor National Cooperative Land and Wildlife Management Area.
3) Deer - No known impacts.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - Allotments in the Temblor Range (42,614 acres) that are impacted by recreational activities such as disturbances to livestock from ORVs and indiscriminate shooting are allotments 0015, 0063, and 0096.

Minerals - No impacts.

Realty - No known impacts.

Recreation - 1) The present Poso Creek situation allows an unregulated shooting site for target practice and hunting close to Bakersfield where few other similar opportunities exist. This use poses a safety and trash problem (shooting within Caltrans right-of-way for Highway 65 with oilfield production ongoing behind target areas).

2) Undesignated ORV use is proliferating in the east-central portion of the Temblor Range (estimated 7,000 acres affected). Public land in the Kettleman Hills is seeing less ORV use now than in the past due to the fencing of oil and gas developments on private land that borders public land (estimated 5,000 acres affected). The amount of ORV use in the MA is estimated at 76,000 visitor hours per year (56,000 hunters and 20,000 motorcycles and other ORV use).

3) Access to Caliente Range is difficult to find in the present situation. The Caliente Range is surrounded by private land and only a relative few hunters and hikers have gained access in recent years (3.5 miles BLM easement unmarked). Private helicopters have been used to gain access to the upper reaches of the range for hunting purposes.

Soils and Water Resources - Same as Alternative III.

Wildlife - No known impacts.

SPECIAL LAND AND RESOURCE USE NEEDS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Same as Alternative I.

Soils and Water Resources - No impacts.

Wildlife - 1) Threatened and Endangered Species - Same as Alternative II.

2) Upland Game - A decrease in food supply for young which will, in turn, affect the healthiness of the young if spraying is permitted near guzzlers or during the months of April through June.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - All operations meet minimum requirements of present management.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Existing specifications for road construction under present management help prevent erosion and resultant water quality degradation. Natural water resources will continue to be impacted by livestock grazing, off-road vehicles, and mining. Developments and construction activities on steep slopes will continue to cause sheet and gully erosion.

Wildlife - No known impacts.

MANAGEMENT AREA 6: VENTURA

ALTERNATIVE I: EMPHASIZE PROTECTION

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - Loss of potential revenue from disposal.

Recreation - No impacts.

Soils and Water Resources -No impacts.

Wildlife - No impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources -No impacts.

Wildlife - No known impacts.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - 1) Oil and Gas - No impacts since no Special Category Areas are identified in this MA.
2) Locatable Minerals - No impacts. This MA remains open to mineral entry.
3) Other Leasable and Saleable Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Same as Alternative IV since no Special Category Areas are identified in this MA.

Wildlife - No known impacts since no Special Category Areas are identifed in this MA.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - A loss of cross-country ORV opportunities and limited vehicle use to the existing 10 miles of roads, ways, and trails.

Soils and Water Resources - Minor soil compaction and sheet erosion will occur from use of existing roads, ways, and trails. Minor degradation of water quality could occur from sediment produced by use of existing vehicle routes.

Wildlife - No known impacts.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas
a) Exploration - No impacts since exploration activities normally do not require construction activities.
b) Pre/Post-leasing - Leases and permits may contain special stipulations which will restrict development (such as no surface occupancy). Roads, pipelines, sumps, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 30% (2,320 acres or 16% of the public land in this MA). There is no impact on rental since leases will be let.
2) Locatable Minerals - There will be no impacts on mining activities, but construction activities may be determined to be unnecessary or undue and could possibly require the relocation of any facilities, roads, or structures to other less sensitive locations. There are currently no mining claims on public land in this MA; therefore, no impacts.
3) Other Leasable and Saleable Minerals - There will be no impacts to mining activities, but no construction activities will be allowed on 2,320 acres of slopes greater than 30% or on highly erosive soils. No resources identified; therefore, no impacts.

Realty - May require re-routing or rejection of some land use applications based on slope and/or soil types.

Recreation - Exclusion of 2,320 acres from recreational routes and/or facility construction due to slopes greater than 30%.

Soils and Water Resources -This alternative provides the best protection for water and soil resources. Protective measures will reduce sheet and gully erosion caused by soil disturbance. This will result in less sedimentation of water resources and improved water quality. Protection of water resources from overuse will result in further improvements in water quality. Minor, short-term erosion will occur due to fence construction.

Wildlife - Reduced erosion and fencing water sources will result in improved browse conditions. More cover for wildlife will be provided especially around springs.

ALTERNATIVE IA: NO GRAZING

Cultural and Paleontological Resources - Adverse impacts to cultural resources due to trampling, trampling related activities, and midden contamination will be eliminated. No impacts to paleontological resources.

Livestock Grazing - This alternative will result in the loss of 23 AUMs ($30 potential revenue loss to public and $200 revenue necessary to graze same AUM level on private land) of annual average grazing use each year. "The mechanical action of animals in loosening seed carrying burs, awned seeds, and the like in their hair, in distribution of hard-coated seeds through the feces, and loosening bulbs, corms, and bits of rhizome that they may be transported elsewhere is probably of unsuspected importance. There are instances in which total protection of range from livestock has failed to result in the expected revival of the vegetation, presumably because of the lack of animal acting in aiding reproduction... It is often felt by stockmen that ungrazed plants are not so healthy and vigorous as lightly grazed plants, and research seems to indicate that properly grazed plants are as productive as or more productive than ungrazed" (Stoddard and Smith, 1955). Besides the impact of stagnated perennial plant communities in the long-run, there will be significant short-term impact from the construction of several miles of fence to keep livestock grazing adjacent private land from wandering onto public land. Also fire hazard will increase from a buildup of old vegetation.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

MANAGEMENT AREA 6: VENTURA

ALTERNATIVE II: COMBINED EMPHASIS

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas
a) Exploration - Approximately 180 acres of public land would be removed from exploration activities, about 1% of the total public land available in the MA.
b) Pre/Post-Leasing - No impacts since minerals are reserve in any disposal.
2) Locatable Minerals - No long term impacts since minerals reserved in any disposal.
3) Other Leasable and Saleable Minerals - No impacts since minerals reserved in any disposal.

Realty - Sale of public land will increase property tax revenues to local governments and reduce potential management costs to the Bureau. Sales will bring an economic return to the public of approximately $36,000 at fair market value (estimated at $200/acre).

Recreation - Potential loss of 180 acres for recreational use.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No known impacts.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas - No impacts since no Special Category Areas are identified in this MA.
2) Locatable Minerals - A Memorandum of Understanding (MOU) will increase efficiency and effectiveness of monitoring mining claim operations according to "undue and unnecessary degradation" criteria. No adverse impacts. This MA remains open to mineral entry.
3) Other Leasable and Saleable Minerals - No impacts.

Realty - No known impacts.

Recreation - Same as Alternative IV since no Special Category Areas are identified in this MA.

Soils and Water Resources - Same as Alternative IV since no Special Category Areas are identified in this MA.

Wildlife - No known impacts since no Special Category Areas are identifed in this MA.

RECREATION USE

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - Same as Alternative I.

Soils and Water Resources - Minor soil compaction and sheet erosion will occur from the use of existing roads, ways, and trails. Minor degradation of water quality could occur from sediment produced by vehicle routes.

Wildlife - No known impacts.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas
a) Exploration - No impacts since exploration activities normally do not require construction activities.
b) Pre/Post-Leasing - Leases and permits may contain special stipulations which will restrict development (such as no surface occupancy). Roads, sumps, pipelines, oil wells, etc. are

considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 50% (2,100 acres or 15% of the public land in this MA). There will be no impact on rental since leases will be let.

2) Locatable Minerals - There will be no impacts on mining activity; however, construction activities may be determined to be undue and unnecessary and could possibly require the operator to relocate the construction activities to an area less sensitive to watershed impacts. The locatable mineral potential of this MA is relatively low; therefore, no impacts to locatable minerals will occur.

3) Other Leasable and Saleable Minerals - There will be no impacts to mining these resources; however, no construction activities will be allowed on the 2,100 acres of highly erosive soils or on slopes greater than 50%. The leasable mineral and saleable mineral potential of this MA is relatively low; therefore, there will be no impacts to these resources.

Realty - May require re-routing or rejection of some land use applications based on slope and/or soil types.

Recreation - Exclusion of 2,100 acres from recreational routes and/or facility construction due to slopes greater than 50%.

Soils and Water Resources - Same as Alternative I except, construction activities on slopes between 30% and 50% (220 acres) will cause accelerated erosion in the localized area. Use of secondary (developed) sources will cause minor soil compaction near the source.

Wildlife - Same as Alternative I.

MANAGEMENT AREA 6: VENTURA

ALTERNATIVE III: EMPHASIZE PRODUCTION

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals -
1) Oil and Gas
a) Exploration - Approximately 1,820 acres of public land will be removed from exploration activities, about 13% of the total public land available in the MA.
b) Pre/Post-Leasing - No impacts since minerals are reserved in any disposal.
2) Locatable Minerals - No long term impacts since minerals reserved in any disposal.
3) Other Leasable and Saleable Minerals - No impacts since minerals reserved in any disposal.

Realty - Sale of public land will increase property tax revenues to local governments and reduce potential management costs to the Bureau. Sales will bring an economic return to the public of approximately $364,000 at fair market value (estimated at $200/acre).

Recreation - A potential loss of 1,820 acres to recreational use.

Soils and Water Resources -No impacts.

Wildlife - No known impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals
1) Oil and Gas - No impacts since no Special Category Areas are identified in this MA.
2) Locatable Minerals - Monitoring of operations will be coordinated through a Memorandum of Understanding (MOU) with state agencies, increasing the efficiency and effectiveness of management of public land under "undue and unnecessary degradation" criteria. No known adverse impacts. This MA remains open to mineral entry.
3) Other Leasable and Saleable Minerals - No impacts.

Realty - No known impacts.

Recreation - Same as Alternative IV since no Special Category Areas are identified in this MA.

Soils and Water Resources - Same as Alternative IV since no Special Category Areas are identified in this MA.

Wildlife - No known impacts since no Special Category Areas are identifed in this MA.

RECREATION USE

Cultural and Paleontological Resources - Potential impacts to significant (known and unknown) cultural resources from ORVs and casual collecting.

No known impacts to paleontological resources.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - 2,550 acres open to increased ORV use, hunting, hiking, camping, and increased trail proliferation.

Soils and Water Resources - Designating the MA open to ORV use will increase the potential for soil compaction, erosion, and sedimentation. This potential will be greater than in Alternative I and II.

Wildlife - No known impacts.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals -

1) Oil and Gas

a) Exploration - No impacts since exploration activities normally do not require construction activities.

b) Pre/Post-Leasing - Leases and permits may contain special stipulations which will restrict development (such as no surface occupancy). Roads, pipelines, sumps, oil wells, etc. are considered construction activities and will not be allowed on highly erosive soils or on slopes greater than 70% (1,525 acres or 11% of the public land in this MA). There will be no impact on rental since leases will be let.

2) Locatable Minerals - There will be no impacts on mining activity; however, construction activities may be determined to be undue and unnecessary and could possibly require the operator to relocate the construction activities to an area less sensitive to watershed impacts. The locatable mineral potential of this MA is relatively low; therefore, no impacts to locatable minerals will occur.

3) Other Leasable and Saleable Minerals - There will be no impacts to mining these resources; however, no construction activities will be allowed on the 1,525 acres of highly erosive soils or on slopes greater than 70%. The leasable mineral and saleable mineral potential of this MA is relatively low; therefore, there will be no impacts to these resources.

Realty - May require re-routing or rejection or some land use applications based on slope and/or soil types.

Recreation - Exclusion of 1,530 acres from recreational routes and/or facility construction due to slopes greater than 70%.

Soils and Water Resources - Construction activities on slopes between 50% and 70% (580 acres) could cause a significant increase in accelerated erosion depending on soil erodibility, care taken by operators during construction, and climatic conditions following construction. Use of developed water sources will cause minor soil compaction and erosion near the source. Use of natural sources in addition to developed sources will cause disturbance resulting in soil compaction, sheet and gully erosion, and poorer water quality. Minor, short-term soil erosion will occur due to fence construction.

Wildlife - Same as Alternative I.

MANAGEMENT AREA 6: VENTURA

ALTERNATIVE IV: PRESENT MANAGEMENT

LAND TENURE ADJUSTMENT

Cultural and Paleontological Resources - No impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - Loss of potential revenue from disposal.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - No impacts.

LIVESTOCK GRAZING

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - No impacts.

Wildlife - No known impacts.

MINERALS

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - No known impacts.

Realty - No known impacts.

Recreation - No concentrated recreational activity is found in this MA. There is some ORV use along existing routes and seasonal hunting. Parcels of public land do not lend themselves to general cross-country use due to small size and steep terrain. Mineral activities contribute to the access roads that allow the small amount of recreation use that occurs in the MA (includes light hunting, hiking, camping, and ORV use).

Soils and Water Resources -

1) Oil and Gas - Under present management 61% of public land in this MA is under lease. Overall impacts depend on the extent of development that occurs; however, the following types of impacts are known to occur in presently developed areas.

The development of oil and gas resources involves building roads, drill pads, drilling and operating wells, and land reclamation. Roads and drill pads create an impermeable surface which concentrates and increases runoff thus increasing downslope erosion. Sediment from road surface, ruts, fills, and ditches flows into drainages during rainstorms and degrades water quality.

Barring unexpected accidents, modern methods for drilling wells generally include adequate measures for protecting groundwater quality. Occasionally during well testing, oil will be allowed to flow into an unlined reserve pit which holds drilling fluids. This creates a potential for groundwater pollution.

The Notice to Lessees and Operators of Federal and Indian Oil and Gas Leases (NTL-2B) states that produced water must be disposed of by: 1) injection into the subsurface; 2) lined pits; and 3) by other acceptable methods. Reinjection into the subsurface and the use of lined pits are the least damaging methods of waste water disposal.

Rehabilitation measures such as recontouring the land and revegetation help to minimize long term adverse impacts.

2) Locatable, Other Leasable, and Saleable Minerals - Under present management, no areas of public land are experiencing or have experienced major surface disturbing mining operations. Should this type of disturbance occur, the following types of impacts will be expected in mined areas.

Mining can involve building roads, drilling or dozing holes in the earth, constructing drill pads, extracting and processing minerals, disposing of wastes, and reclamation efforts. Building roads can have a greater impact on water and soil resources than the actual mine does. Roads create an impermeable surface which allows runoff to concentrate and increase thus increasing erosion below the road. Interruption of subsurface flow patterns can cause mass failures of road and fill slopes. Sediment from road surfaces and from road cuts, fills, and ditches flows into drainages during rainstorms and degrades water quality.

Road construction and mine development involve removal of vegetation. Removal of vegetation reduces evapotranspiration, thus increasing runoff and erosion. Mining spoils piles have reduced infiltration rates which, in combination with reduced hydraulic resistance of the surface, contribute to increased overland flow and greater erosion.

Mining increases the concentration of salts, heavy metals, and sediment in runoff water. Often the chemistry of mine spoils is such that overland flow and streamflow below the spoils is at saturation level with saline, alkaline, acid, and heavy metal cations. Mining can affect groundwater resources as well. Mining can physically disrupt aquifers supplying recharge to streams. Mining can cause changes in groundwater flow patterns since material which is backfilled into a disrupted aquifer usually has different hydraulic characteristics than the original aquifer. Putting a pit or shaft into an aquifer can cause a pressure sink which will lower the water table. These effects are detected further and further from the mine over time often causing significant effects such as the drying up of springs. Effects on the aquifer that is mined can affect other aquifers as well since water can often move from one aquifer to another.

Groundwater quality can also be affected. Mineral surfaces exposed during mining contribute increased dissolved solids and trace elements to water which percolates into the groundwater supply. Water percolating downward from mine pits, shafts, and tailing impoundments is similarly affected. This acid mine drainage is caused by increased availability of water and oxygen to acid producing mineral surfaces. It is transported by "weeping", the constant dripping of poor quality water into the groundwater supply. This acid mine drainage is also transported by "flushing" in which water flows through the mine carrying acid to surface and subsurface water systems (U.S. Forest Service, 1979 and 1980).

Reclamation efforts including recontouring the land to match the original topography, replacing stockpiled topsoil, revegetation and mulching can minimize long term adverse impacts by preventing further impacts after a mine is abandoned.

Wildlife - Under present management, impacts to endangered species from proposed well and other past oil and gas lease operations have not occurred. No proposed actions have resulted in formal consultation with the U.S. Fish and Wildlife Service..

RECREATION USE

Cultural and Paleontological Resources - Same as Alternative III.

Livestock Grazing - No impacts.

Minerals - No impacts.

Realty - No known impacts.

Recreation - 2,550 acres will remain open to increased ORV use, hunting, hiking, etc., and increased trail proliferation.

Soils and Water Resources - Less use may occur than under Alternative III; however, the potential for moderate erosion and sedimentation from dispersed use will exist.

Wildlife - No known impacts.

WATER QUALITY AND WATERSHED PROTECTION

Cultural and Paleontological Resources - No known impacts.

Livestock Grazing - No impacts.

Minerals - Presently all operators comply with site specific mitigating measures prescribed on a case-by-case basis.

Realty - No known impacts.

Recreation - No impacts.

Soils and Water Resources - Existing specifications for road construction under present management help prevent erosion and resultant water quality degradation. Natural water resources will continue to be impacted by livestock grazing, off-road vehicles, and mining. Developments and construction activities on steep slopes will continue to cause sheet and gully erosion.

Wildlife - No known impacts.

MITIGATION MEASURES

The following mitigation measures are intended to help reduce or eliminate adverse impacts identified in this chapter. These include specific measures in addition to those already described under Standard Operating Procedures (page 2-24). All mitigation measures pertaining to the identified alternatives will be considered.

1. Prescribed burning may increase livestock forage (base AUMs) within one to three years depending on success of the burn. Livestock use will be dependent upon yearly monitoring, residual mulch requirements, and available forage each year after burning (all alternatives).

   This will prevent livestock use from being increased to a level that will harm other resources.

2. The use of waterbarring, check dams, and other erosion control structures will be used to decrease erosion resulting from management activities where practical (all alternatives).

3. Salt or mineral blocks and spring developments will be located and designed to encourage livestock use away from spring meadows. Where monitoring shows that livestock grazing continues to degrade meadow values, fencing and/or rehabilitation will be considered (all alternatives).

   Spring meadows provide important wildlife habitat and contain watershed values easily disturbed by excessive concentrations of livestock. This mitigation measure will minimize livestock trampling and vegetation destruction within these spring meadows and ensure further protection, if needed.

4. Fences constructed along streams will be at least 150 ft. from the stream and outside the edge of riparian vegetation, if needed (all alternatives).

   This will prevent trampling of streambanks and protect riparian habitat.

5. Prescribed burning areas will not exceed 80% of total acreage to be burned at one time leaving strips of unburned vegetation as a buffer for wildlife. Burning should be permitted following less than an inch rain two or three days prior, when the prescription is mild, and during the late fall, whenever possible (all alternatives).

   This will minimize erosion resulting from prescribed burning.

6. Browse and saltbush reproduction in M category allotments in the Temblor-Caliente/Valley MA having significant deer or endangered species numbers, will be monitored closely. If monitoring shows a downward trend and deer or endangered species are being adversely affected, consideration will be given to reclassify these allotments as I category allotments (Alternative I, II, and III)..

This will ensure forage/cover needs are available for deer and endangered species.

7. Initiate boundary signing for ORV designations and increase visitor service patrols in recreation areas (Alternatives II and III).

This will ensure ORV designation are easily managed by the Bureau and understandable by the public.

8. Fence and/or sign sensitive areas in the vicinity of the Rinconada Mine in cooperation with the U.S. Forest Service and mine owners (Alternatives II and III).

This will provide protection of the sensitive resources and the private property.

UNAVOIDABLE ADVERSE IMPACTS

Alternative I - Emphasize Protection

- Wasted forage on allotments due to mulch management and utilization levels.
- Potential loss of 1,243 AUMs of forage from not prescribed burning all potentially suitable areas.
- 24,880 acres of Special Category Areas will not be open to oil and gas/hydrocarbon, leasing, and development resulting in 1) a potential loss in annual rental of $30,400 or 8% of total annual rental currently received from this planning area, and 2) no development and production of oil and gas/hydrocarbon resources on this land which is classified as prospectively valuable.
- 26% of public land available for mineral leasing will be subject to "no construction" stipulations.
- 900 acres of Special Category Areas containing identified deposits of gypsite will not be available for entry under the mining laws.
- An estimated 500,000 tons of sodium sulfate will not be available for leasing, development, and production.
- Point Sal and Soda Lake MAs closed to all recreational uses.
- 5,070 acres of potential short term accelerated erosion due to prescribed burning.
- Decline in water quality and channel stability from livestock concentration around water sources; removal of vegetation and increased erosion from range projects.
- Loss of aquifer recharge area when roads, drill pads, and mining operations replace native soil; increase in runoff sedimentation due to mining activities; some degree of degradation of surface and groundwater quality due to salts, oil, and heavy metals in runoff water.
- Soil compaction and accelerated erosion from ORV use.

ALTERNATIVE IA - No Grazing

- Loss of 30,505 AUMs of existing annual average grazing use each year and potential loss of 1,243 AUMs of forage from not prescribed burning all potentially suitable areas.

ALTERNATIVE II - Combined Emphasis

- Potential loss of 922 AUMs of forage from not prescribed burning all potentially suitable areas.
- 12,750 acres of Special Category Areas will not be open to oil and gas/hydrocarbon exploration, leasing, and development resulting in 1) a potential loss in annual rental of $12,750 or 8.5% of total annual rental currently received from this planning area, and 2) no development and production of oil and gas/hydrocarbon resources on this land which is classified as prospectively valuable.
- 15% of public land available for mineral leasing will be subject to a "no construction" stipulation.
- 5,520 acres will be leased only with a no surface occupancy stipulation, which may significantly increase the cost of development.
- Development and production of an estimated 500,000 tons of sodium sulfate will be precluded by the no surface occupancy for cross-country ORV travel.

- Limited ORV designations reduce opportunities for cross-country ORV travel.
- 6,780 acres of potential short-term accelerated erosion due to prescribed burning.
- Decline in water quality and channel stability from livestock concentration around water sources; removal of vegetation and increased erosion from range projects.
- Loss of aquifer recharge area when roads, drill pads, and mining operations replace native soil; increase in runoff sedimentation due to mining activities; some degree of degradation of surface and groundwater quality due to salts, oil, and heavy metals in runoff water.
- Soil compaction and accelerated erosion from ORV use.

ALTERNATIVE III - Emphasize Production

- Excessive utilization of forage on poor forage years for allotments not under mulch management.
- 8% of land available for leasing will be subject to a "no construction" stipulation.
- Point Sal and Soda Lake MAs designated for limited ORV use which will reduce opportunities for cross-country ORV travel.
- 8,560 acres of potential short-term accelerated erosion due to prescribed burning.
- Decline in water quality and channel stability from livestock concentration around water sources; removal of vegetation and increased erosion from range projects.
- Loss of aquifer recharge area when roads, drill pads, and mining operations replace native soil; increase in runoff sedimentation due to mining activities; some degree of degradation of surface and groundwater quality due to salts, oil, and heavy metals in runoff water.
- Soil compaction and accelerated erosion from ORV use.

ALTERNATIVE IV - Present Management

- Excessive utilization of forage on poor forage years on all allotments.
- Potential loss of 556 AUMs of forage from not prescribed burning all potentially suitable unallotted areas.
- 8,560 acres of potential short-term accelerated erosion due to prescribed burning.
- Decline in water quality and channel stability from livestock concentration around water sources; removal of vegetation and increased erosion from range projects.
- Loss of aquifer recharge area when roads, drill pads, and mining operations replace native soil; increase in runoff sedimentation due to mining activities; some degree of degradation of surface and groundwater quality due to salts, oil, and heavy metals in runoff water.
- Soil compaction and accelerated erosion from ORV use.

SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

This section identifies the trade-offs between short-term use and long-term productivity of the resources involved in the five alternatives. For this analysis, "short-term" refers to the period of project implementation within 5 years, and "long-term" refers to the period of 20 years or beyond in which the adverse or beneficial impacts of the alternatives would still occur.

In the short-term, possible impacts of some cultural resources may occur (especially under Alternatives III and IV). In the long-term there will be more stabilization to cultural resource sites due to better cultural resource management because of the additional need for identification and protection.

The short-term effect of prohibiting leasing on Special Category Areas will reduce rental (and potential royalty) once this land is withdrawn and to prevent production of oil and gas (or other hydrocarbons). The long-term effect in terms of resource and economics is negligible. The trade-off is at the expense of oil and gas/hydrocarbon development, benefiting long-term preservation and enhancement of Special Category Areas involved (Alternative I and II).

Potential development of a sodium sulfate deposit is precluded in the short-term to preserve the unique habitat at Soda Lake for the foreseeable future. The long-term projection for this deposit is one of storage and will remain so as long as the much larger commercial deposits saturate the market (Alternatives I and II).

Development of gypsite deposits will be precluded in the short-term to preserve long-term benefits to habitat of endangered species on critical/proposed critical habitat. While these deposits may be of long-term economic importance, they are not presently of marketable value (Alternatives I and II).

Mineral development is given primary emphasis in all areas in the short-term, jeopardizing long-term well being of sensitive resource values which are not legally mandated to be protected (Alternatives III and IV).

Long-term mineral productivity will depend more on technological advances in oil recovery techniques than on resource conservation on public land in this planning area (Alternatives III and IV).

Disposal of public land (under Alternatives II and III) will result in a short-term economic gain, but long-term loss of present and potential public land values. Long-term management efficiency will be enhanced, especially in areas that might produce future trespass problems.

Vegetation manipulation (in the Coast MA and the Temblor-Caliente/Valley MA) may increase the rate of soil erosion in the first 1 or 2 years after implementation, but will reduce the potential of large soil losses if a wildfire were to occur in later years.

Under Alternatives III and IV, the ORV designations result in both short and long-term recreation opportunities, but long-term adverse impacts to the soil resources.

Short-term use by mining may have long-term effects on groundwater quality and aquifer characteristics.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

This section identifies the extent to which the five alternatives will irreversibly limit potential uses of the land and resources. Irreversible and irretrievable commitments of resources occur when a wide range of future options are foreclosed.

Any loss of significant cultural resources as a result of grazing activities, mining operations, oil and gas development, and prescribed burning in the planning area will be irreversible and irretrievable.

Cultural resources destroyed will result in irreversible and irretrievable losses of data which could be important in the understanding of history and prehistory in the planning area under all alternatives.

Disposal of public land will result in an irreversible and irretrievable loss of administrative control and public use for all resource values except mineral values on those parcels.

An accelerated soil erosion as a result of prescribed burning, ORV use, mining or other activities will be irreversible and irretrievable (all alternatives).

Prescribed burning may cause the loss of some wildlife species associated with decadent vegetation. The individuals lost are irretrievable.

Alternation of groundwater quality and aquifer characteristics due to mining may be irreversible.

Soil loss due to surface disturbing activities will be irretrievable.

CHAPTER 5

CONSULTATION AND COORDINATION

Chapter 5

Consultation and Coordination

PUBLIC INVOLVEMENT

Consultation and coordination with the public and public agencies was a planned and integral part of the development of the management alternatives analyzed in this Draft EIS.

Following is a summary of the consultation, coordination, and public participation in the EIS process:

- Plan and Program Update mailed out in December, 1979 requesting input in issue identification;
- Notice of Intent to begin the Coast/Valley management plan published in the Federal Register on December 3, 1979;
- Plan and Program Update mailed out in June, 1980 requesting information regarding existing resources;
- Preplanning analysis completed with a Notice of Availability of the planning criteria published in the Federal Register on November 17, 1982 as well as a media release with an Amendment to that Notice published December 30, 1982.

Oral as well as written comments received throughout the planning process were used in the final development of alternatives analyzed in the Draft EIS. These comments are on file and available for public review in the Caliente Resource Area Office, Bakersfield District.

After public review, the comments received on this Draft EIS will be addressed in the preparation of the Final EIS.

The District Manager then has the responsibility of preparing the RMP and proposed grazing decisions from the Final EIS and additional comments received.

The RMP may be protested by any person who participated in the planning process and may be adversely affected by the proposed decisions. The proposed grazing decisions will be subject to public review and consultation before final decisions are made and implementation is begun.

LIST OF AGENCIES AND ORGANIZATIONS TO WHOM COPIES OF THE EIS WERE SENT*

In addition to interested individuals, comments on the Draft EIS were requested from the following agencies and interest groups.

ELECTED OFFICIALS

Federal

Alan Cranston - Senator
Bobbi Fiedler - Representative
Robert Lagomarsino - Representative
Leon Panetta - Representative
Charles Pashayan - Representative
William Thomas - Representative
Pete Wilson - Senator

State

Jim Costa - Assembly
Ed Davis - Senate
Gary Hart - Senate
Bill Jones - Assembly
Kenneth Maddy - Senate
Tom McClintock - Assembly
Jack O'Connell - Assembly
Don Rodgers - Assembly
Eric Seastrand - Assembly
Walter Stiern - Senate
Rose Vuich - Senate
Norman Waters - Assembly
Cathie Wright - Assembly
Phil Wyman - Assembly

GOVERNMENT

Federal

- National Park Service
- Soil Conservation Service
- U.S. Forest Service - Los Padres*
- U.S. Geological Survey
- U.S. Bureau of Mines
- U.S. Bureau of Reclamation
- U.S. Fish and Wildlife Service*
- U.S. Department of Energy (Elk Hills)
- U.S. Department of the Air Force
- U.S. Department of the Army
- U.S. Department of the Navy

*means copy of entire document otherwise a summary of the complete document was sent

State

- Office of the Governor*
- Office of Planning and Research*
- Air Resources Board
- California Coastal Commission
- California Department of Conservation
- California Department of Fish and Game*
- California Department of Forestry
- California Department of Parks and Recreation
- California Department of Water Resources
- California Public Utilities Commission
- California State Historic Preservation Office*
- Division of Mines and Geology
- Division of Oil and Gas*
- Native American Heritage Commission*

County

Agencies:
- Agricultural Advisor*
- Board of Supervisors*
- Department of Libraries*
- Planning Departments*

Counties:

- Kern
- Kings
- San Luis Obispo
- Santa Barbara
- Tulare
- Ventura

INTERESTED GROUPS/ORGANIZATIONS

- All Livestock Operators with Allotments Within Planning Area*
- American Motorcycle Association
- Atlantic Richfield Company
- Bakersfield District Grazing Advisory Board*
- Bakersfield Trailblazers
- California Association of Four-Wheel Drive Clubs
- California Cattlemen's Association*
- California Federation of Mineralogical Societies*
- California Mining Association*
- California Native Plant Society*
- California Wildlife Federation
- California Woolgrowers Association
- Center for Urban Affairs and Policy Research, Northwestern University
- Chevron, U.S.A.
- Excel Minerals

INTERESTED GROUPS/ORGANIZATIONS (cont.)

Gulf Oil Company
Independent Petroleum Association of America*
Infotec Development, Inc.
Minerals Exploration Coalition
Mobil Oil Company
National Audubon Society
Natural History Museum of Los Angeles-
  Director Curator of Vertebrate Paleontology
Natural Resources Defense Council*
Santa Fe Energy
Santa Inez Tribal Council
Santa Rosa Tribal Council
Selby Group Limited Partnership
Shell Oil Company
Sierra Club
Sun Oil Company
Tenneco Oil Company
Texaco Oil Company
Union Carbide Exploration Corporation
Union Oil Company
Western Mining Council
Western Oil and Gas Association*

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APPENDICES

APPENDIX 1: MINERALS POLICY

This statement sets forth BLM policy for management of mineral and energy resources on public land. It reflects the provisions of three important acts of Congress: the Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, and the National Materials and Minerals Policy, Research and Development Act of 1980. This policy statement represents a commitment by BLM to implement the policies of these statutes consistent with BLM's other statutory obligations.

The Mining and Minerals Policy Act of 1970 declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources.

The Federal Land Policy and Management of 1976 reiterates that the 1970 Mining and Minerals Policy Act be implemented and directs that public land be managed in a manner which recognizes the Nation's need for domestic sources of minerals and other resources. FLPMA also provides for improved inventory, planning, and decision processes.

The 1980 National Materials Policy, Research and Development Act restates the need to implement the 1970 act and requires the Secretary of the Interior to improve the quality of minerals data in Federal land use decision making. In April 1982, the President delivered to Congress the first annual report required by the 1980 act, which provided specific guidance to implement these acts.

The BLM recognizes that public land are an important source of the Nation's mineral and energy reosurces, some of which are critical and strategic. BLM is responsible for making public land available for orderly and efficient development of these resources under principles of balanced multiple use management.

The following principles will guide BLM in managing mineral resources on public land:

1. Except for Congressional withdrawals, public land shall remain open and available for mineral exploration and development unless withdrawal or other administrative action is clearly justified in the national interest.

2. BLM actively encourage and facilities the development by private industry of public land mineral resources in a manner that satisfies national and local needs and provides for economically and environmentally sound exploration, extraction, and reclamation practies.

3. BLM will process mineral applications, permits, leases, and other use authorizations for public land in a timely and efficient manner.

4. BLM's land use plans and multiple use management decisions will recognize that mineral exploration and development can occur concurrently or sequentially with other resource uses. The Bureau further recognizes that land use planning is a dynamic process and decisions will be updated as new data are evaluated.

5. Land use plans will reflect geology, energy, and mineral values on public land through more effective mineral resource data assessment.

6. The Bureau will maintain effective professional, technical, and managerial personnel knowledgeable in mineral exploration and development.

These principles will be implemented immediately and further clarified where necessary through specific guidance to the field.

APPENDIX 2:
MANAGEMENT STRATEGY FOR MEDITERRANEAN ANNUAL RANGE AREAS OF THE BAKERSFIELD DISTRICT, CALIFORNIA

In accordance with the Final Grazing Management Policy (Instruction Memorandum No. 82-292), this strategy paper will outline the application of the selective management concept to the unique management situations associated with California Mediterranean Annual Ranges. The selective management concept will be used for prioritizing allotment management, monitoring, and improvement project needs identified through the land use planning process. It will also be used to help identify inventory information needed to address land use plan issues. This strategy will be incorporated into two on-going and two beginning planning/EIS efforts within our District for public consultation.

CRITERIA TO BE USED

Present Management - This would look at the adequacy of present management to meet the long term management objectives. As related to the Annual Ranges, this would look at the efficiency with which the forage is being utilized. Things to consider here are 1) is more flexibility needed to properly utilize the forage that is produced (mulch management), 2) are there any opportunities to achieve significantly better livestock distribution, or 3) does the timing of livestock use need to be adjusted or staggered for proper range management.

Production Potential - Would assess present production to potential production. When looking at production of currently suitable grazing areas, the potential to increase that production is a concern more applicable on perennial ranges. However, application to the Annual Range will be made by analyzing the amount of production increase which would be expected if potentially suitable areas were made suitable (i.e., chaparral - brush type conversions).

Conflicts - Do significant multiple use conflicts exist on the allotment.

Economic Return - Likelihood of positive economic return on public investment.

Amount of Public Land - Amount of public land included in the allotment.

OPTIONAL CRITERIA

Cooperation - Does the operator maintain existing projects and will future projects be maintained?

Range Condition - The criterion will address the general allotment range condition. Although this criterion will serve most utility when discussing perennial range sites within the subject area, it can be used to address those allotments with Annual Range characteristics where the extreme in conditions are realized. These would be allotments which are continually over or under utilized, resulting in decreased production (relative to similar sites) or obvious increases in less desirable indicator species over significant portions of the allotment.

RATING

Each criterion will be rated on its own merit on the scorecard outlined in Table 1. After rating all criteria, the total grouping under a particular management class would indicate the management class to which the allotment should be assigned. The final check would be to assess the selective management class guidelines to see if the rating is reasonable. The optional criteria may be needed to make the final rating decision.

Remember that the initial rating will be updated and possibly revised as new allotment information is collected and analyzed. This will normally be done through the land use planning process, the initial Range Program Summary (RPS), and subsequent RPS updates. The procedures outlined in IM No. 82-292 will be followed when revisions need to be made to the allotments classification.

Table 1

RANKING SCOREBOARD

Criteria	Selective Management Class		
	I	M	C
Present Management	Unsatisfactory	Satisfactory	Change Not Feasible
Production Potential	Below optimum potential	Near or at potential	Near potential
Resource Conflicts	Conflicts Evident	Conflicts Limited	Conflicts Limited
Amount of Public Land	Greater than 60%	59% - 10%	Less than 10%
Economic Return	Positive of return	Possible	Not Likely
Optional Criteria	I	M	C
Range Condition	Poor - Fair	Satisfactory	Poor -Fair
Cooperation	High Level of Cooperation	Generally Cooperative	Uncooperative

SELECTIVE MANAGEMENT GUIDELINES

Allotments grouped into selective management categories would be managed as outlined.

Category I - Improve
- Active preference adjustment may be recommended in land use plan.
- Usually will involve mulch management (grazing is allowed until a specified residual mulch level is reached on key areas on an annual basis).
- Will have an AMP.
- Allotment utilization will be annually monitored.

Category M - Maintain
- Active preference will not be initially adjusted.
- Will only involve mulch management if the allotment is already managed under that system.
- May have an AMP.
- Allotment utilization will not be checked on an annual basis unless under mulch management.

Category C - Custodial
- Active preference will not be initially adjusted.
- Will not involve mulch management.
- Usually will not involve an AMP.
- Very limited utilization monitoring.

MONITORING STUDIES

Short Term - (as outlined in the selective management categories above).
Long Term - Monitoring studies would only be established if needed to: 1) assess condition of important wildlife habitat areas that are predominantly perennial vegetation; 2) document annual production of each precipitation zone by a limited number of representative sites (should future preference adjustments be needed); 3) to document special studies such as prescribed burn areas, crucial T and E plant or animal habitat sites, or critical erosion problem areas. The studies would be established only on those areas determined to have conflicts with or receive significant use from livestock as identified in the land use plan.

Mulch Management Residual Mulch Requirements

Avg. Annual Precipitation In Inches		Percent Slope			
		0-25	26-50	51-75	76-100
Less than 6 inches		200 lbs/ac	300 lbs/ac	400 lbs/ac	500 lbs/ac
6 to 15 inches		300 lbs/ac	400 lbs/ac	500 lbs/ac	600 lbs/ac
16 to 80 in.	Red soils, clays, & sandy soils	500 lbs/ac	600 lbs/ac	750 lbs/ac	750 lbs/ac
	Loams & silt soils	500 lbs/ac	750 lbs/ac	900 lbs/ac	1000 lbs/ac
80+ in.	Red soils, clay soils & sandy soils	500 lbs/ac	750 lbs/ac	850 lbs/ac	950 lbs/ac
	Loams & silt soils	500 lbs/ac	900 lbs/ac	1000 lbs/ac	1200 lbs/ac

APPENDIX 3:

ALTERNATIVE MANAGEMENT FOR CATEGORY "I" MULCH MANAGEMENT ALLOTMENTS

In the event that an "I" category allotment grazing operator does not wish to operate under a mulch management grazing plan, the following procedures should be followed.

The allotment should be placed back on advanced billing for grazing use. The mulch levels of the allotment or the browse or saltbush utilization levels will be measured for at least 3 years. Each year an actual use record should be collected. The actual use should be compared to the resulting utilization (along with climate data) to determine if grazing preference needs adjustment. Preference should be adjusted to allow proper utilization to occur on a moderately poor year. Temporary nonrenewable use can be allowed on good forage years to make efficient use of the increased production. By doing this we can manage for the average annual production.

Annual monitoring (as in mulch management) should continue and the preference adjusted preiodically according to the results. By doing this we will end up with a clearer picture of what the average annual production really is. The preference for mulch management allotments need not be adjusted since preference is not functional in the management of those allotments.

APPENDIX 4: FEDERAL CANDIDATE PLANT SPECIES OCCURRING OR WITH HIGH POTENTIAL OF OCCURRENCE ON PUBLIC LAND WITHIN THE PLANNING AREA

SPECIES

Amsinkia furcata
Arctostaphylos pilosula
Atriplex tularensis
A. vallicola
Camissonia hardhamiae
Chorizanthe breweri
C. rectispina
Cirsium crassicaule
C. fontinale obispoense
Cordylanthus mollis hispidus
Dithyrea maritima
Eriogonum gossypinum
Eschscholzia rhombipetala
Fritillaria agrestis
Galium hardhamiae
Lasthenia leptalea
Layia jonesii
Lupinus ludovicianus
Malacothamnus palmeri involueratus
Monardella linoides oblonga
Sanicula hoffmannii
S. maritima[1]
Sidalcea hickmannii parishii[1]

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[1] State Listed - Rare

APPENDIX 5: CRITERIA USED FOR DETERMINATION OF LAND TENURE ADJUSTMENT ALTERNATIVES

Alternative I -	No parcels identified.
Alternative II -	No parcels with known cultural sites, known RT and E species habitat and/or sitings, mining claims, or oil and gas leases were identified.
Alternative III -	Same as Alternative II except parcels with undeveloped oil and gas leases were included.
Alternative IV -	No parcels identified.

GLOSSARY

GLOSSARY

ACEC	Area of Environmental Concern
ADC	Animal Damage Control
AUM	Animal Unit Month
BLM	Bureau of Land Management
BMP	Best Management Practices
BNLL	Blunt-nosed Leopard Lizard
C&MU	Classification for Multiple Use
CFR	Code of Federal Regulations
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
FUP	Free Use Permit
GEM	Geology, Energy, and Minerals
GML	General Mining Law of 1872
GSA	Geothermal Steam Act of 1970
IMP	Interim Management Plan
KGRA	Known Geothermal Resource Area
KGS	Known Geologic Structure
KLA	Known Leasing Area
MA	Management Area
MLA	Mineral Leasing Act of 1920
MOU	Memorandum of Understanding
MSA	Minerals Act of 1947
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NSO	No Surface Occupancy
NTL	Notice to Lessee
ORV	Off-Road Vehicle
PL	Public Law
RMP	Resource Management Plan
ROD	Record of Decision
RPS	Rangeland Program Summary
R T AND E	Rare, Threatened, and Endangered
SHPO	State Historic Preservation Officer
SJKF	San Joaquin Kit Fox
SMARA	Surface Mining and Reclamation Act of 1975
SOP	Stantard Operating Procedures
SVIM	Soil-Vegetation Inventory Method
USDI	U.S. Department of the Interior
USFS	U.S. Forest Service
VRM	Visual Resource Management
WSA	Wilderness Study Area

ABANDONMENT - The act of plugging back an oil well and rehabilitating the surface.

ACCELERATED EROSION - Accelerated erosion occurs when the rate of soil erosion increases to a level which exceeds the rate of soil development. The rate of erosion is accelerated when land uses or rare natural events cause a change in the conditions of vegetation cover and the physical state of the ground surface.

ACTIVITY PLAN - A detailed action plan for a particular resource or combination of resources prepared subsequent to the land use plan. The activity plan details how to accomplish the stated objectives of the land use plan for a particular area, allotment, etc., by the use of site-specific projects and analysis.

ALLOTMENT - An area of land where one or more operators graze their livestock. It contains public land and can include parcels of private or state-owned land. The number of livestock and period of use are stipulated for each allotment. An allotment may consist of several pastures or be only one pasture.

ALLOTMENT MANAGEMENT PLAN (AMP) - A livestock grazing management plan dealing with a specific unit of rangeland, and based on multiple-use resource management objectives. The AMP considers livestock grazing in relation to other uses of the range and in relation to renewable resources - watershed, vegetation, and wildlife. An AMP establishes the seasons of use, the number of livestock to be permitted on the range, the range improvements needed, and the grazing system.

ALLUVIAL FAN - A fan-shaped deposit of alluvium, sometimes called an apron, dropped by a stream where its gradient lessens abruptly.

ALLUVIUM - A general term for all unconsolidated material deposited by streams, including gravel, sand, silt, clay, and all mixtures of these.

ANIMAL UNIT - The equivalent of one mature (1,000 lbs.) cow or 5 sheep based upon average daily forage consumption of 26 lbs. dry matter per day.

ANIMAL UNIT MONTH (AUM) - (1) The amount of feed or forage required by an animal unit for one month (i.e., 800 lbs./month). (2) Tenure of one animal unit for a period of one month.

ANNUALS - Plants produced from seed which complete their life cycle in one growing season.

ARCHAEOLOGICAL DISTRICT - A series of individual sites which occur in proximity and form a culturally related unit. One type of National Register entry.

ARCHAEOLOGICAL RESOURCES - Sites, areas, structures, objects, or other evidence of prehistoric or historic human activities.

ARCHAEOLOGICAL SITE - Geographic locale containing structures, artifacts, material remains, and/or other evidence(s) of past human activity.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) - Areas within the public land where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards.

AREA OF SPECIAL SCIENTIFIC INTEREST - An area, that because of its unique values due to location of scientifically important or type specimens, or because of interest from recognized authorities of the unique values, warrants consideration for protection by the Bureau by utilizing whatever means are available.

AREA OF HIGH PUBLIC INTEREST - An area that exhibits heavy public use, or appropriation of resource values. For example: an area of high ORV use, oil and gas leasing activity, or mining claim location, to name a few.

BEDROCK MORTAR - Exposed rock or stone which exhibits grinding depressions formed by the milling of acorns and other foodstuffs by Indians.

BEST MANAGEMENT PRACTICE (BMP) - A practice or combination of practices determined by the State and/or areawide planning agencies, after problem assessment, examination of alternative practices, and appropriate public participation, to be the most effective, practicable means of preventing or reducing pollution generated by non-point sources to a level compatible with water quality standards.

BROWSE - The tender shoots, twigs, and leaves of trees and shrubs often used as food by deer, livestock, and other animals.

CALIENTE FORMATION - Miocene and Pliocene (1-26 million years before present) Consists of a thick sequence of bedded claystone, sandstone, and conglomerate with a lesser amount of marine sedimentary and volcanic rock. Abundant claystone reflects a quiet water depositional environment (i.e., lake).

CAMP SITE - Area utilized by one or more tasks, which also shows evidence of occupation by the presence of housepits, midden deposits, and/or hearths.

CARRYING CAPACITY - The maximum stocking rate possible without damaging vegetation or related resources. Carrying capacity may vary from year to year on the same area due to fluctuating forage production caused primarily by differing amounts of precipitation.

CLASS I CULTURAL INVENTORY - An inventory of the existing literature and a profile of the current data base for cultural resources, frequently utilized to guide field inventories.

CLASS II CULTURAL INVENTORY - A sample-oriented field inventory which is representative of the range of cultural resources within a finite study area.

CLASS III CULTURAL INVENTORY - An intensive field inventory designed to locate and record, from surface and exposed profile, all cultural resources within a specified area.

CLAY LOAM - A soil texture composed of 20 to 45 percent sand, 15 to 50 percent silt, and 27 to 40 percent clay.

CONSTRUCTION - The term "construction", when applied to the Water Quality and Watershed Protection issue, refers to:

1) any surface disturbing activities conducted on an oil and gas lease;
2) any surface disturbing activities conducted under a NOI to conduct geothermal resources exploration;
3) any surface disturbing activities conducted on a geothermal lease;
4) any facilities, structures, paved and/or permanent roads, parking lots, or holding tanks used in association with the development of locatable, saleable, or leasable (other than oil and gas) minerals.

The term construction does not refer to the actual severance and removal of overburden, ore, saleable or leasable (other than oil and gas) minerals at the mine site.

CRITICAL WILDLIFE HABITAT - That portion of the living area of a wildlife species that is essential to the survival and perpetuation of the species either as individuals or as a population.

CULTURAL RESOURCES - Fragile and nonrenewable elements of human culture including archaeological remains (areas, structures, objects, or evidences of prehistoric or historic human activities) and socio-cultural values traditionally held by ethnic groups (sacred places, traditionally utilized naturally-occurring raw materials, etc.).

CUMULATIVE IMPACT - The aggregate impact of existing and proposed activities. Individual intrusions when considered by themselves may not impair wilderness suitability, however, when combined with other existing and proposed substantially unnoticeable impacts, the total effect may be sufficient to impair an area's suitability for preservation as wilderness.

CUSTODIAL MANAGEMENT - The opposite of active or intensive management.

DATA RETRIEVAL - The planned professional recovery of archaeological data to mitigate impacts or for research. Excavation, surface collection, and technical drawings are examples of data retrieval.

DEPENDENCY - The amount of forage provided by public land, expressed as a percentage of herd's total forage requirements for one complete year. The forage requirement is based on the ranch's total herd.

DESERT LAND ENTRY - The use of public land (that is desert in character) for agricultural uses when authorized by the Act of March 3, 1877.

DEVELOPED WATER SOURCE - A water source that has been altered by man with the result that water is diverted from the source or the physical structure of the source has been altered in some way (e.g., channelization).

DISCOVERY - Where minerals have been found in sufficient quantity and quality to render a person of ordinary prudence to be justified in further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine.

DRY RAVEL - Movement of large amounts of rock and gravel, under semi-arid to arid conditions, due in part to the influence of gravity on steep slopes.

ECONOMIC LIMIT OF HAUL - That point measured from the source of the mineral materials where the cost of hauling or transporting the mineral material no longer gives the deposit a positive value or worth.

ECONOMICALLY VALUABLE - A positive showing of value or worth of a mineral deposit after all costs of developing the mine, and extracting, removing, and marketing the material have been accounted for.

ECOTONE - The transition zone between two plant communities. Usually this zone embodies some of the features of two communities, but has a characteristic structure of its own. It is usually a belt rather than a sharp line.

EMERGENCY ACTIONS - Operations which are in response to a natural or other type disaster, such as flooding, fires, and earthquakes.

EMERGENCY PUBLIC WORKS ACTIVITIES - Repair activities conducted by local, state, or federal agencies in response to the destruction of a public asset such as roads, dams, buildings, canals, or levees, to name a few.

ENDANGERED SPECIES - Any species formally recognized by the U.S. Fish and Wildlife Service as in danger of extinction throughout all or a significant portion of its range.

EPHEMERAL STREAM - A stream which only flows for a short time each year in direct response to precipitation events.

EQUESTRIAN - Pertaining to the use of horses.

ESSENTIAL HABITAT - Areas recommended for designation as critical habitat for threatened or endangered species.

EVAPOTRANSPIRATION - Evaporation is a collective term used to describe the vaporization of water without specifying the surface involved. Transpiration is used to designate the vaporization of water from plant surfaces. Where the land surface is composed of both vegetative cover and bare soil the two terms are lumped and treated singularly as evapotranspiration.

FAUNA - The animals of a given region or period.

FAWNING AREA - Site specific area utilized by mule deer for birthing.

FLOOD CHANNEL - A nearly level, elongated alluvial plain that borders a stream and is subject to periodic floods.

FLUSHING - Process by which water is transported through a mine carrying acid salts formed underground into surface and subsurface water systems.

FORAGE - All browse and herbaceous foods that are available to grazing animals.

FORAGE ALLOCATION - The amount of forage that will be authorized to a specific grazing operator, or reserved for a specific grazing animal or management objective.

FORAGE UTILIZATION - The amount of current annual year's growth of a plant that is removed by grazing animals.

FORB - Non-woody herbaceous plants neither grass nor resembling grass.

FORM CLASS - Describes the physical shape of a plant relative to the amount of browse available to a herbivore.

FOSSILIFEROUS - Containing organic remains.

GOOD FORAGE YEAR - A growing season (usually November to April) that results in abnormally high total vegetative production because of high moisture levels and seasonal temperatures.

GOOD WATER QUALITY - Maintain good water quality which meets State of California standards where it exists. Where poor water quality naturally exists, do not permit activities to degrade quality further.

GRANIVOROUS - An animal that feeds on grain and seeds.

GRAZING LEASE - A document authorizing use of the public land for the purpose of grazing livestock.

GREEN PERIOD - The time during the annual active growth season of a plant, starting from emergence through dormancy or cure-out in annual plants.

GUZZLER - A water catchment and storage device utilizing a concrete, asphalt, or steel apron to catch rainfall and a buried tank (usually fiberglass) to store it. Guzzlers usually store about 900-1,000 gallons of water, when full. They are accessible, at ground level to small wildlife, by means of ramp leading into the tank.

GYPSITE - Calcium sulphate ($CaSO_4$) disseminated in soil, generally 70% gypsum used mainly as a soil conditioner/additive.

HABITAT - The natural environment of a plant or animal.

HAZARDOUS WASTE - A solid waste or combination of solid wastes which because of its quantity, concentration or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase of mortality or increase in serious, irreversible or reversible incapacitating illness; or to pose a substantial or potential hazard to human health or to the environment when improperly treated, stored, transported or disposed of, or otherwise managed.

HEALTHY RIPARIAN HABITAT - 1) Stable stream banks and beds, and 2) vegetation composition and density characteristic of undisturbed stream and spring vegetation in the area.

HECTARE - A unit of land measure equal to 2.471 acres or 10,000 square meters.

HERBACEOUS MATTER - Having the texture, color, etc., of an ordinary foliage leaf.

HISTORIC - Refers to period wherein non-native cultural activities took place, based primarily upon European roots, having no origin in traditional Native American culture(s).

HISTORIC MINING SITE - Evidences of mining activities which pre-date the 1930s, usually consisting of ore deposits, prospects, processing facilities, residences, and support facilities.

INFILTRATION RATE - The rate at which water moves through the soil surface and into the ground.

INFRASTRUCTURE - The basic, underlying framework or features of something especially of a technological kind, as communication and transport facilities, etc. of an organization.

INTERIM MANAGEMENT POLICY - The Bureau's management policy for land under wilderness review. The policy is to continue resource use on land under wilderness review in a manner that maintains the area's suitability for preservation as wilderness (referred to as the Non-impairment Standard).

INVERTEBRATE - Lacking a spinal column, also: of or relating to invertebrate animals: lacking in strength or vitality.

KEY BROWSE PLANTS - A shrub species to which ungulates and possibly other herbivores show a distinct preference as food.

KILOGRAMS - A unit of mass weight, equal to 1,000 grams, and equivalent to 2.2046 pounds.

KNOWN GEOLOGICAL STRUCTURE (KGS) - Technically the trap in which an accumulation of oil or gas has been discovered by drilling and determined to be productive, the limits of which include all acreage that is presumptively productive.

KNOWN GEOTHERMAL RESOURCE AREA (KGRA) - An area in which the geology, nearby discoveries, competitive interests, or other indicia would, in the opinion of the Secretary, engender a belief in men who are experienced in the subject matter that the prospects for extraction of geothermal steam or associated geothermal resources are good enough to warrant expenditures of money for that purpose.

KNOWN SOLID MINERAL LEASING AREA (KLA) - An area of federal land approved by the Bureau for competitive leasing (43 CFR 3500) where geologic characteristics are well known by drilling, geological studies and geophysical methods, the deposit can be mined using current mining methods and where geologic characteristics meet minimum acceptable standards.

LEGAL CONSTRAINTS - Those laws and regulations which limit and guide the Bureau in its decisions and authorizations in the conduct of its responsibilities of managing the public land.

LITHIC SCATTER - The occurrence of flaked stone tools and flakes, from isolates to large dense scatters. Generally, workshop areas sometimes associated with quarries.

LOAMY - A general term for soil textures which include sandy loam, loam, sandy clay loam, clay loam, and silt loam.

LOCATABLE MINERALS - Whatever is recognized as a mineral by the standard authorities, whether metallic or other substance, when found in public land in quantity and quality sufficient to render the land valuable on account thereof, is treated as coming within the purview of the mining laws. Deposits of oil, gas, coal, potassium, sodium, phosphate, oil shale, native asphalt, solid and semisolid bitumen, and bituminous rock including oil-impregnated rock or sands from which oil is recoverable only by special treatment after the deposit is mined or quarried,...The so-called "common variety" mineral materials and petrified wood on the public land may be acquired under the Materials Act, as amended.

LODE CLAIM - A mining claim on public land which contains valuable minerals occurring in a vein or lode. Lode mining claims may be located upon discovery of a vein or lode "of quartz or other rock in place bearing gold, silver, cinnabar, lead, tin, copper, or other valuable deposits". A lode claim shall not exceed 1,500 feet in length along the course of the vein or lode. Also a claim must not extend more than 300 feet on each side of the middle of the vein at the surface.

MANAGEMENT AREA - A discrete portion of the total planning area that has common features, problems, and/or management needs, that lends itself to specific management decisions.

MARKET AREA - That area in which a mineral material can be extracted, hauled and marketed, and still have a value or worth.

METAMORPHISM - Textural and mineralogical changes which occur in solid rocks in response to changes in temperature, pressure, and/or chemistry.

MIDDEN - Dark-colored soil deposits formed from organic residues remaining from Indian campsites, frequently containing artifactual, faunal and floral constituents of high scientific value.

MILLING STATION - An area containing milling implements such as manos, metates, bedrock mortars, and milling slabs.

MILL-SITE ENTRY - Nonmineral public land to be used as a mill site under the General Mining Laws of 1872, as amended, for the beneficiation of ore or in the development of a lode claim.

MINERAL ENTRY - Prospecting, exploration, location, and development of locatable mineral deposits on public land as authorized by the General Mining Law of 1872 (17 Stat 91).

MINERAL MATERIAL SITE - An area where the Bureau has authorized the removal of mineral material pursuant to the Acts of 1947 and 1955. These may be individual free use or sale areas, common use areas, or community pits.

MODIFIED FIRE SUPPRESSION PLAN - A plan prepared to consider alternatives to intensive fire suppression action when conditions are such that they would approximate those being strived for under prescribed burning criteria.

MONITORING - Specific studies which evaluate the effectiveness of actions taken toward achieving management objectives.

MULCHING - A covering, as of straw, leaves, manure, etc, spread or left on the ground around plants to prevent excessive evaporation or erosion, enrich the soil, etc.

MULTIPLE USE - The management of the public land and its various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historical values, and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.

NATIONAL NATURAL LANDMARK - An area of national significance located within the boundaries of the United States or on the Outer Continental Shelf designated by the Secretary of the Interior that contains an outstanding representative example(s) of the nation's natural heritage, including terrestrial communities, aquatic communities, landforms, geological features, habitats of native plant and animal species, or fossil evidence of the development of life on earth.

NATIONAL REGISTER OF HISTORIC PLACES (NRHP) - A register of districts, sites, buildings, structures, and objects, significant in American history, architecture, archaeology, and culture, established by the Historic Preservation Act of 1966 and maintained by the Secreatry of the Interior.

NATIONAL REGISTER ELIGIBLE - Status conferred upon a cultural resource when it is deemed qualified for the NRHP, following formal documentation and consultation.

NATIONAL REGISTER POTENTIAL - Status of a cultural resource which is deemed qualified for the NRHP, prior to formal documentation and consultation; managed as if it were actually listed.

NATURAL WATER SOURCE - A water source existing in its natural state without any modification or diversion by man.

NONHAZARDOUS WASTE - Any garbage, refuse, sludge from a waste treatment plant, water supply treatment, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and community activities, but does not include, solid or disolved material in domestic sewage or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under Sec. 402 of the Federal Water Pollution Act, as amended (86 Stat. 880) or source (Special Nuclear, or biproduct material as defined by the Atomic Energy Act of 1954 as amended).

NO SURFACE OCCUPANCY (NSO) - Requirement placed as a term of a lease or permit which does not allow the lessee/permittee the physical occupancy, placement or use of the identified area of the lease or permit.

NOXIOUS WEED - Any species of plant which is, or is liable to be, detrimental or destructive and difficult to control or eradicate which the California Director of Food and Agriculture, by regulation, designates to be a noxious weed. Noxious weeds are listed under California Food and Agriculture Code Title 3, Sec.4500.

OFF-ROAD VEHICLE (ORV) - This term includes a wide variety of vehicles used for access and recreation including motorcycles, three and four wheeled all terrain vehicles (ATVs), 4-wheel drive trucks, jeeps and dune buggys.

OFF-ROAD VEHICLE DESIGNATION - Executive Order 11644 requires that all public land be designated for appropriate levels of ORV use in one of three possible categories: Open, Limited, or Closed.

Open - Designated areas where ORVs may be operated subject to the operating regulations and vehicle standards set forth in 43 CFR 8340.
Limited - Designated areas where ORV use is subject to restrictions deemed appropriate, such as limited to designated or existing routes. For the purpose of this EIS, designated routes are defined as vehicle routes shown on current 7½' USGS topographical maps.
Closed - Designated areas where the ORV use is permanently prohibited.

OPHIOLITE - Basic igneous rocks associated with geosynclinal sediments, generally altered to rocks rich in serpentine, chlorite, epidote, and albite.

OTHER LEASABLE MINERALS - Coal, oil shale, potassium, sodium, and minerals on acquired land belonging to the United States that can be acquired under the mineral leasing laws, and uncommon varieties of mineral materials such as, but not limited to, sand, gravel, common clay cinders, block pumice, and building stone, which is disposed of pursuant to the Material Sale Act of 1947 (61 Stat. 681) and the Act of July 23, 1955 (69 Stat. 367).

PALEONTOLOGY - The science of the forms of life existing in former geologic periods, as represented by fossil animals and plants.

PERENNIAL - A plant having a life cycle of three or more years.

PERENNIAL STREAM - A stream which flows throughout the year.

PERMITTEE - Holder of a license or permit for grazing of livestock on an allotment.

PETROGLYPH - A figure, design, or indentation carved, abraded, or pecked onto a rock.

PHOSPHATE - An important ingredient in fertilizers.

PICTOGRAPH - A figure or design painted onto a rock.

PLACER CLAIM - A locatable mineral claim encompassing public land which contains valuable minerals that do not occur as a vein or lode. May include building stone of uncommon variety.

PLANT COMMUNITY - A regional element of the vegetation characterized by the presence of certain dominant species. A vegetation type may consist of one to several communities.

POOR FORAGE YEAR - A growing season (usually November to April) that results in abnormally low total vegetative production because of low moisture levels or unseasonal temperatures or both.

POST-LEASE - All activities occurring on the land embraced by the lease conducted in accordance with the terms of the lease.

PRECIOUS METALS - Metals with an intrinsic value such as gold, silver, and platinum.

PREFERENCE - Grazing privileges established following the passage of the Taylor Grazing Act, based on the use of the Federal range during the priority period. The active preference and suspended preference together make up the total grazing preference.

PREFERENCE RIGHT - A right obtained by a permittee to lease land under the approved permit when to the satisfaction of the authorized officer, a showing of a valuable mineral deposit for which the permit was issued, has been discovered.

PREHISTORIC - Refers to period wherein Native American cultural activities took place which were not yet influenced by contact with historic non-native culture(s).

PRESCRIBED BURNING - The application of fire to wildland fuels under such conditions of weather, fuels, and topography that specific objectives are accomplished safely.

PRE-LEASE - All actions, except exploration, that occur before and including leasing. These include feasibility studies and all actions leading up to a leasing decision, and include the decision on leasing.

PRIMARY WATER SOURCE - A natural undeveloped water source.

PRIMITIVE RECREATION - Nonmotorized and nondeveloped types of outdoor recreational activities.

PROSPECTIVELY VALUABLE - Lands for which geologic conditions are favorable for the accumulation of a mineral resource and would warrant sufficient interest to explore or prospect for an economic deposit.

PROTO-HISTORIC - Refers to period wherein Native American cultural activities took place which were influenced by contact with historic non-native culture(s).

PRESSURE SINK - A reduction in hydraulic pressure due to physical disruption of an aquifer.

PUBLIC LAND - Land administered by the Bureau of Land Management.

QUARRY SITES - Places where minerals occur which were a source of raw material for prehistoric/historic peoples.

RANGE CONDITION - The current condition of the range compared to its potential (in this case annual production of grazable forage).

RANGE DEVELOPMENT - Any structure or excavation that facilitates management of rangeland or livestock.

RANGE IMPROVEMENT - Any activity or program on or relating to rangelands which is designed to improve production of forage, change vegetation composition, control patterns of use, provide water, stabilize soil and water conditions, and provide habitat for livestock, wild free-roaming horses and burros, and wildlife. The term includes but is not limited to structures, treatment projects, and use of mechanical means to accomplish the desired result.

RANGELAND SUITABILITY - A measure of an area's ability to be used for livestock grazing using four major criteria (distance to water, degree of slope or other physical barriers, forage production, and watershed condition) which are evaluated independently or in various combinations to arrive at a suitability class.

RANGE TREND - The direction of change in range condition.

RESEARCH NATURAL AREA - An area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: (1) a typical representation of a common plant or animal association; (2) an unusual plant or animal association; (3) a threatened or endangered plant or animal species; (4) a typical representation of common geologic, soil, or water features; or (5) outstanding or unusual geologic, soil, or water features.

RESIDUAL FORAGE - The amount of dry plant material measured in pounds per acre left on the ground from the previous year's growth.

RESIDUAL VEGETATION - Also referred to as residual mulch, that amount of total vegetative biomass that remains above mineral soil following a specified livestock grazing season.

REST - Removal of grazing on a range area to allow plants to replenish their food reserves. Used in this document to refer to year-long relief from livestock grazing.

RIGHT-OF-WAY GRANT - A right attached to the land for use by another party, (i.e., utility lines, road, etc.).

RIPARIAN - Situated on or pertaining to the bank of a river, stream, or other body of water. Normally used to refer to the plants of all types that grow rooted in the watertable of streams, ponds and springs.

ROAD - A vehicle route that has been improved and maintained by mechanical means to ensure relatively regular and continuous use.

ROCK ART/CEREMONIAL SITES - Petroglyphs or pictographs, some of which were probably expressions of Native American ceremonial activities.

ROCKSHELTER - Naturally-formed recess in a rock formation which provided shelter to prehistoric occupants.

SANDY LOAM - A soil texture composed of 50 to 85 percent sand, 0 to 50 percent silt, and 0 to 20 percent clay.

SCARIFICATION - Disturbance of the upper soil layer by mechanical means in preparing a site for seeding or planting.

SEASON OF USE - That period of time, as designated in planning documents, within which livestock grazing can be authorized.

SECONDARY WATER SOURCE - A developed water source e.g., a reservior or a trough.

SEDIMENTARY BEDROCK - Rock made up of particles deposited from suspension in water, such as shale and sandstone.

SEDIMENTARY SEQUENCES - A bedded series of rocks representing one or more depositional environments.

SEGREGATION - Refers to the status of land and what laws (mineral or land disposal) may be excluded from applying to the land.

SENSITIVE PLANTS - Those plants which require management consideration under current BLM policy.

SIGNIFICANCE - A high degree of importance as indicated by either quantitative measurements or qualitative judgements. Significance may be determined by evaluating characteristics pertaining to location extent, consequences, and duration.

SILICEOUS SHALE - A very slightly silicified claystone, generally of marine origin, in which silica form shelled micro-organisms, have contributed extra strength and hardness to the rock.

SOIL COMPACTION - The process of increasing the bulk density of the soil through the compression of large voids. Reduction of the air spaces in the soil will result in overland flow of water and surface erosion occurring with less intense storms. Soil compaction can also significantly reduce plant vigor by reducing the gas exchange (CO_2 and O_2) in the root zone, by reducing the transport rate of nutrients through the soil, and by creating a physical impedence to root penetration.

SOIL-VEGETATION INVENTORY METHOD (SVIM) - Procedures which provides a uniform, systematic method for inventorying soil and vegetation resources and collecting data for use in land use planning.

SOUND RECLAMATION PRACTICES - The conduct of reclaiming a disturbed site in accordance with the standards of practice that will leave the reclaimed area in a manner that conforms to the natural environment as near as practical.

SPECIAL CATEGORY AREAS - Critical/proposed critical threatened and endangered species habitat, Areas of Critical Environmental Concern (ACECs), Class I VRM areas, areas where known cultural sites occur, and areas of special scientific or public interest.

SPECIES COMPOSITION - A measure of the percentage of a given area that each plant occupies in relation to others on a given site.

SPLIT ESTATE - Federally owned subsurface minerals and private surface.

STABLE SLOPES - Slopes free of accelerated surface erosion (sheet, rill, and gully erosion) and mass movement erosion (rotational slumps and landslides).

STATIC - Pertaining to or characterized by a fixed or unchanging condition.

STOCKING RATE - The number of animals on a specific area at a specific time, usually expressed in acres/AUM.

STRATIGRAPHY - That branch of geology which treats the formation, composition, sequence, and correlation of the stratified rocks as part of the earth's crust.

SUSTAINED YIELD - The achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of the public land consistent with multiple use. This term is most commonly associated with forest management and the provisions of an undiminished or "even flow" average annual production of wood fiber over decades. It is also applicable to the management of all renewable resources including forage, wildlife, water, recreation or any value that can be managed for renewal and sustained productivity. It is dependent on the application of multiple use management in a way that assumes the maintenance of the land's productivity.

TEMBLOR, OR VAQUEROS FORMATION - Miocene (10-26 million year before present) Consisting predominantly of interbedded and intertongued marine sequences of sandstone and shale.

TEMPORARY CAMP - Area utilized seasonally for for short-term activity, with evidence of occupation in addition to primary task(s). Usually smaller than "camp" sites, with less midden depth and extent, fewer tasks evident, with a less diverse natural resource base available.

TERTIARY - Relating to, or being the first period of the Cenozoic era or the corresponding system of rocks marked by the formation of high mountains (as the Alps, Caucasus, and Himalayas) and the dominance of mammals on land.

TEXTURE, SOIL - The relative proportions of sand, silt, and clay particles in a mass of soil.

THREATENED SPECIES - Any species formally recognized by the U.S. Fish and Wildlife Service as likely to become an endangeredspecies within the foreseeable future throughout all or a significant portion of its range.

TRAIL - A route used primarily for non-motorized travel (hikers, horseback riders, etc.)

TUNNEL SITES - Tunnel locations are made by erecting a substantial post or monument at the face or point where the tunnel is started. Stakes or monuments should be placed along the line of the tunnel at appropriate intervals to a distance of 3,000 feet from the point of commencement. The owner of a mining tunnel shall have the possessory right to 1,500 feet of any blind lodes cut, discovered, or intersected by such tunnel. This gives the locator of the tunnel exclusive right to prospect an area 3,000 feet by 3,000 feet, while work on the tunnel is being prosecuted with reasonable diligence.

TYPE SPECIMEN - That specimen, generally the holotype, that provides the basis for description and recognition of a species of organisms; used loosely for other less important types.

UNNECESSARY OR UNDUE DEGRADATION - Impacts greater than those that would normally be expected from an activity being accomplished in compliance with current standards and regulations and based on sound practices, including use of the best reasonable available technology.

UNSUITABLE RANGE - An area not suited for livestock grazing because of barrenness, lack of forage or water, unstable soils, or physical barriers such as topography, rock, or dense timber. The areas may still have value for wildlife.

UTILIZATION - The amount of vegetation or foliage removed from a plant by grazing or browsing animals. Usually expressed as a percent of the plants total annual weight.

VEGETATION MANIPULATION - Mechanical, chemical, or prescribed fire treatments initiated by man to alter or replace the present plant community of a site to a different plant community.

VEGETATION TYPE - A grouping of similar vegetation based on structure, a product of the complex of climatic factors effective in a region.

VERTEBRATE - Any of a comprehensive division usually held to be a subphylum of chordates comprising animals with a segmented spinal column together with a few primitive forms in which the backbone is represented by a notochord.

VISITOR HOURS - Unit of measure for recreation use; one hour spent on public land by one recreationist.

VISUAL RESOURCE MANAGEMENT (VRM) - The planning, design and implementation of management objectives to provide acceptable levels of visual impacts for all BLM resource management activities. VRM classes I through V each describe a different degree of modification allowed in the basic elements of the landscape and still retain its character.

VRM CLASS I - This class provides primarily for natural ecological changes and precludes any management activities that create visual contrasts within the landscape. These contrasts must not attract attention. This class is applied to wilderness areas, wild and scenic rivers and other similar situations.

WATERSHED - The area drained by a river or stream system.

WAY - A vehicle route maintained solely by the passage of vehicles.

WEEPING - The constant dripping of poor quality water into the groundwater supply.

WILDCAT DRILLING - Drilling of a well (oil) in an area of unknown potential i.e., outside existing fields.

WILDERNESS AREA - (1) An area formally designed by Congress as part of the National Wilderness Preservation System. (2) An area formally designated as part of the State of California's Wilderness Preservation System.

WILDERNESS INVENTORY - An evaluation of the public land in the form of a written description and map showing the land that meets the wilderness criteria as established under Section 603(a) of FLPMA and Section 2(c) of the Wilderness Act, which will be referred to as wilderness study areas (WSAs). See Wilderness Inventory Handbook, dated September 27, 1978.

WILDERNESS STUDY AREA (WSA) - Roadless areas of 5,000 acres or more and roadless islands of public lands identified as having wilderness characteristics described in the Wilderness Act of 1964.

WILDERNESS SUITABILITY - A management recommendation based on the application of wilderness suitability criteria, that the best use of the resources comprising a Wilderness Study Area would be designation of a WSA as a component of the National Wilderness Preservation System.

WITHDRAWAL - A formalized action restricting specified land from operation or disposal under specified laws, either mineral laws or land disposal laws, or both. Can also be used to transfer jurisdiction of land to another federal agency.

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ERRATA SHEET

Page	Item
xix	Add INDEX I-1
2-11	Recreation Use-Alternative I Change (except for country roads) to (except for county roads)
G-1	Add AMP Allotment Management Plan
Pocket	Map 1-2 Public land at Point Sal is a Management Area
Pocket	Map 2-1 Point Sal and Soda Lake are proposed ACECs Reef Ridge located in a portion of T. 29S., R. 20E. should be included in Other Special Categories San Andreas Fault Scarp located in portions of T. 32S., R. 22E. and T. 11N., R. 25W. should be included in Other Special Categories

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BAKERSFIELD DISTRICT

Caliente Resource Area

South Half

COAST-VALLEY PLANNING AREA

MANAGEMENT AREA BOUNDARIES

LEGEND

▨	Public Land
—	Management Area Boundaries

Scale: 1:250,000

Map 1-2

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BAKERSFIELD DISTRICT
Caliente Resource Area
North Half

COAST-VALLEY PLANNING AREA

MANAGEMENT AREA BOUNDARIES

LEGEND

▨ Public Land
━ Management Area Boundaries

Map 1-2

Scale: 1:250,000

BAKERSFIELD DISTRICT
Caliente Resource Area
South Half

COAST-VALLEY PLANNING AREA

SPECIAL CATEGORY AREAS

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BAKERSFIELD DISTRICT
Caliente Resource Area
North Half

COAST-VALLEY PLANNING AREA

SPECIAL CATEGORY AREAS

Map 2-1

LEGEND

- ▨ Public Land
- ━ Management Area Boundaries
- — Areas of Critical Environmental Concern (ACEC)
- ▨ Other Special Categories

Scale: 1:250,000

BAKERSFIELD DISTRICT

Caliente Resource Area

South Half

COAST-VALLEY PLANNING AREA

GRAZING ALLOTMENT BOUNDARIES

LEGEND

▨	Public Land
━	Management Area Boundaries
—	Grazing Allotments
0000	Allotment Number

Scale: 1:250,000

Map 3-1

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BAKERSFIELD DISTRICT
Caliente Resource Area
North Half

COAST–VALLEY PLANNING AREA

GRAZING ALLOTMENT BOUNDARIES

LEGEND

- ▨ Public Land
- ━ Management Area Boundaries
- — Grazing Allotment
- 0000 Allotment Number

Map 3-1

Scale: 1:250,000